=> fil reg
FILE 'REGISTRY' ENTERED AT 18:09:08 ON 13 FEB 2003
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 12 FEB 2003 HIGHEST RN 489395-53-1
DICTIONARY FILE UPDATES: 12 FEB 2003 HIGHEST RN 489395-53-1

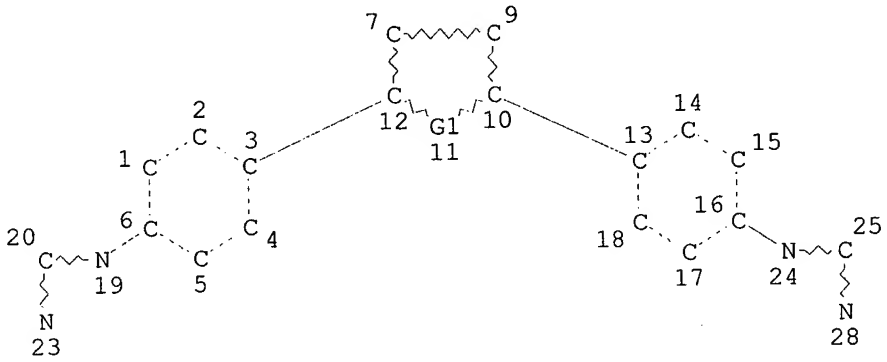
TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

=> d sta que l3
L1 STR



VAR G1=O/S/N
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 23

STEREO ATTRIBUTES: NONE
L3 83 SEA FILE=REGISTRY SSS FUL L1

100.0% PROCESSED 119 ITERATIONS 83 ANSWERS
SEARCH TIME: 00.00.01

=> d his

(FILE 'HOME' ENTERED AT 18:03:54 ON 13 FEB 2003)
SET COST OFF

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     FILE 'REGISTRY' ENTERED AT 18:04:02 ON 13 FEB 2003
L1                STR
L2              3 S L1
L3             83 S L1 FUL
                  SAV L3 SACKEY008/A
L4             12 S L3 AND CARBAMIC ACID
L5             71 S L3 NOT L4

     FILE 'HCAOLD' ENTERED AT 18:07:41 ON 13 FEB 2003
L6              0 S L5
L7              0 S L4

     FILE 'HCAPLUS' ENTERED AT 18:07:48 ON 13 FEB 2003
L8              5 S L5
L9              4 S L4
L10             5 S L8,L9
L11             4 S L10 AND (BOYKIN ? OR TIDWELL ? OR WILSON ? OR PERFECT ? OR ST
L12             5 S L10,L11

     FILE 'USPATFULL, USPAT2' ENTERED AT 18:08:46 ON 13 FEB 2003
L13             1 S L5
L14             1 S L4
L15             1 S L13,L14

     FILE 'REGISTRY' ENTERED AT 18:09:08 ON 13 FEB 2003

=> fil uspatall
FILE 'USPATFULL' ENTERED AT 18:09:16 ON 13 FEB 2003
CA INDEXING COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'USPAT2' ENTERED AT 18:09:16 ON 13 FEB 2003
CA INDEXING COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

=> d l15 bib abs hitstr

L15  ANSWER 1 OF 1  USPATFULL
AN      2002:280652  USPATFULL
TI      Reversed amidines and methods of using for treating, preventing, or
        inhibiting leishmaniasis
IN      Werbovetz, Karl A., Worthington, OH, UNITED STATES
        Brendle, James J., Beltsville, MD, UNITED STATES
        Boykin, David W., Atlanta, GA, UNITED STATES
        Stephens, Chad E., Villa Rica, GA, UNITED STATES
PI      US 2002156098       A1   20021024
AI      US 2001-985590      A1   20011105 (9)
PRAI    US 2001-288428P      20010504 (60)
        US 2000-246330P      20001107 (60)
        US 2000-246244P      20001106 (60)
DT      Utility
FS      APPLICATION
LREP    ATTN: MCMR-JA (Ms. Elizabeth Arwine), Office of the Staff Judge
        Advocate, U.S. Army Medical Research and Material Command, 504 Scott
        Street, Fort Detrick ATTN: MCMR-JA (Ms. Elizabet, MD, 21702-5012
CLMN    Number of Claims: 31
ECL     Exemplary Claim: 1
DRWN    9 Drawing Page(s)
LN.CNT 2211
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB      Methods for treating, preventing or inhibiting leishmaniasis in a
        subject comprising administering to the subject a therapeutically
        effective amount of at least one compound having the structural formula
        ##STR1##
```

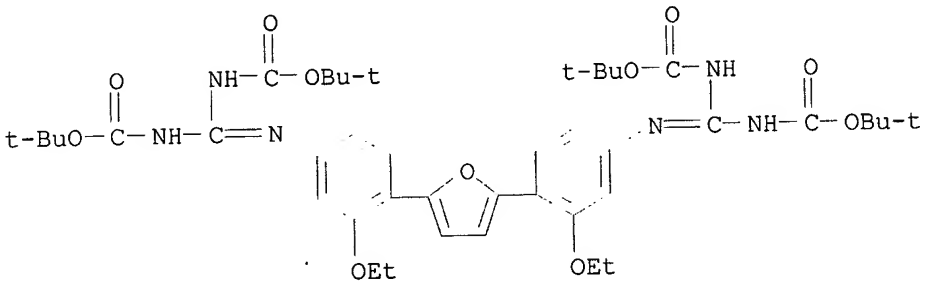
wherein Y is a heteroatom; R.sup.1 and R.sup.2 are independently H or an alkyl, cycloalkyl, heterocycloalkyl, aryl, amino or heteroaryl group; and X.sup.1, X.sup.2, and X.sup.3 are independently H or an alkyl, alkoxy, halo, amino, alkylamino, dialkylamino, acylamino, alkylthio, sulfonyl, cyano, carboxy, alkoxycarbonyl, or carbamoyl group are disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT **423165-60-0P 423165-63-3P 423165-65-5P**
423165-67-7P 423165-70-2P 423165-73-5P
(prepn. and reaction; reversed amidines for treating, preventing, or inhibiting leishmaniasis)

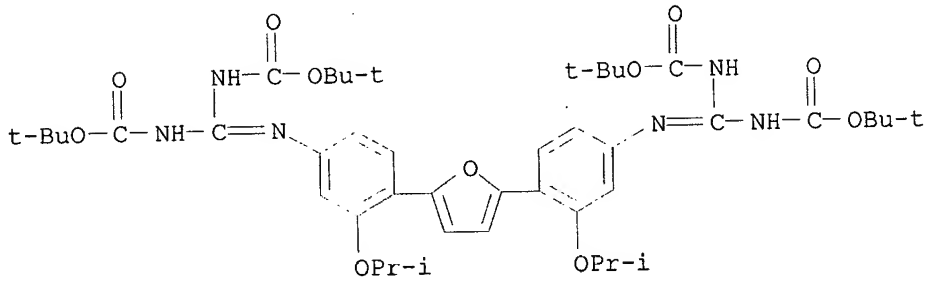
RN 423165-60-0 USPATFULL

CN Carbamic acid, [2,5-furandiylbis[(3-ethoxy-4,1-phenylene)nitrilomethanetetrayl]]tetrakis-, tetrakis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



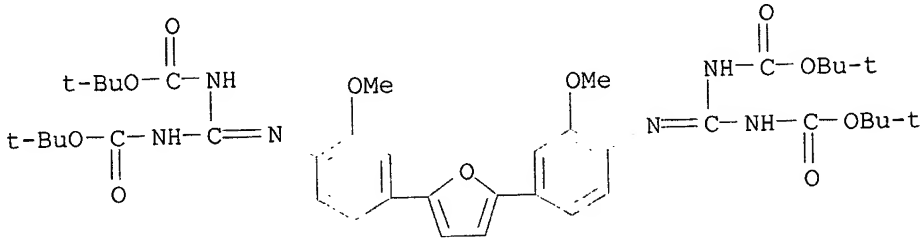
RN 423165-63-3 USPATFULL

CN Carbamic acid, [2,5-furandiylbis[[3-(1-methylethoxy)-4,1-phenylene]nitrilomethanetetrayl]]tetrakis-, tetrakis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)

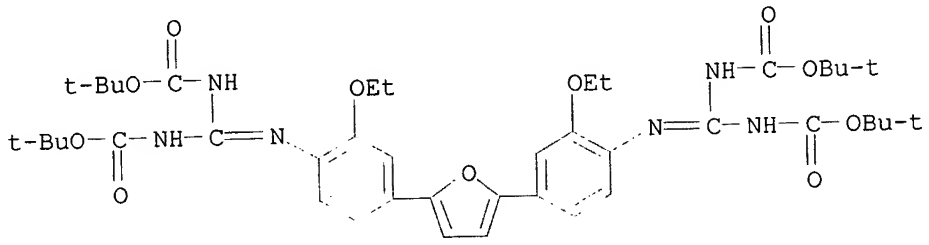


RN 423165-65-5 USPATFULL

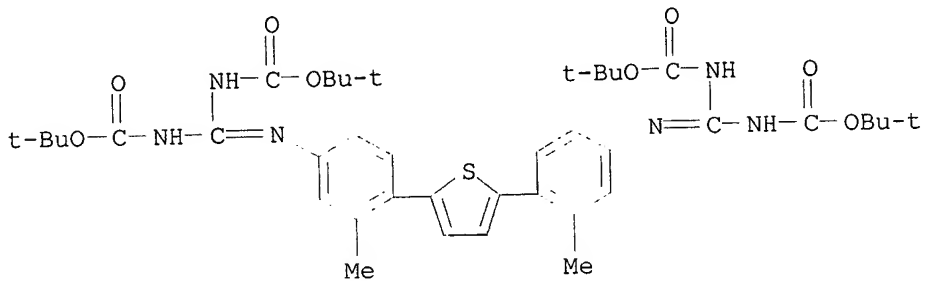
CN Carbamic acid, [2,5-furandiylbis[(2-methoxy-4,1-phenylene)nitrilomethanetetrayl]]tetrakis-, tetrakis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



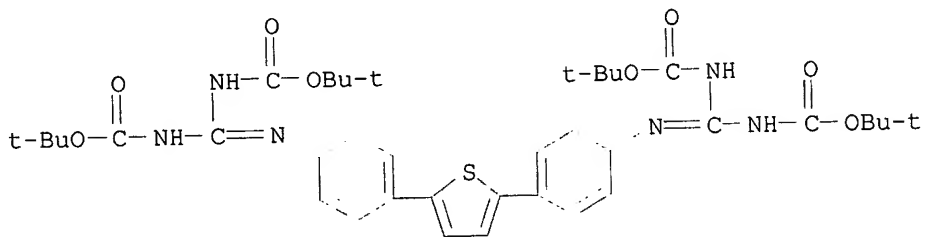
RN 423165-67-7 USPATFULL
CN Carbamic acid, [2,5-furandiylbis[(2-ethoxy-4,1-phenylene)nitrilomethanetetrayl]]tetrakis-, tetrakis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



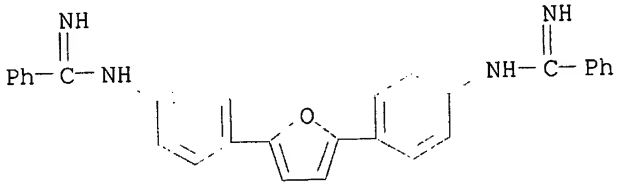
RN 423165-70-2 USPATFULL
CN Carbamic acid, [2,5-thiophenediylbis[(3-methyl-4,1-phenylene)nitrilomethanetetrayl]]tetrakis-, tetrakis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



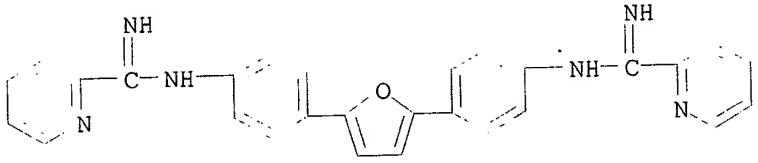
RN 423165-73-5 USPATFULL
CN Carbamic acid, [2,5-thiophenediylbis(4,1-phenylenenitrilomethanetetrayl)]tetrakis-, tetrakis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



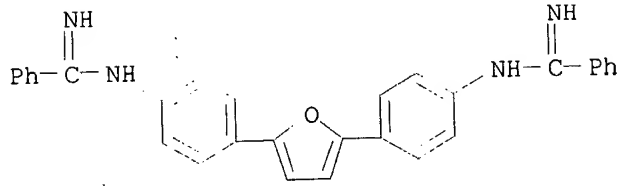
IT **347191-02-0P**
(reversed amidines for treating, preventing, or inhibiting leishmaniasis)
RN 347191-02-0 USPATFULL
CN Benzenecarboximidamide, N,N''-(2,5-furandiyldi-4,1-phenylene)bis- (9CI) (CA INDEX NAME)



IT **347190-99-2P 347191-03-1P 347191-04-2P**
347191-07-5P 347191-09-7P 347191-14-4P
347191-16-6P 347191-18-8P 347191-20-2P
423165-06-4P 423165-09-7P 423165-22-4P
423165-25-7P 423165-28-0P 423165-29-1P
423165-31-5P 423165-62-2P
(reversed amidines for treating, preventing, or inhibiting leishmaniasis)
RN 347190-99-2 USPATFULL
CN 2-Pyridinecarboximidamide, N,N''-(2,5-furandiyldi-4,1-phenylene)bis- (9CI) (CA INDEX NAME)

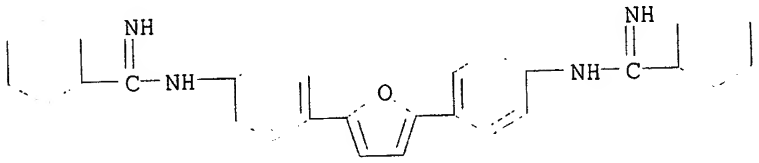


RN 347191-03-1 USPATFULL
CN Benzenecarboximidamide, N,N''-(2,5-furandiyldi-4,1-phenylene)bis-, dihydrochloride (9CI) (CA INDEX NAME)

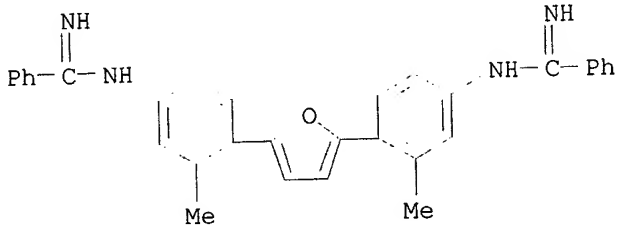


●2 HCl

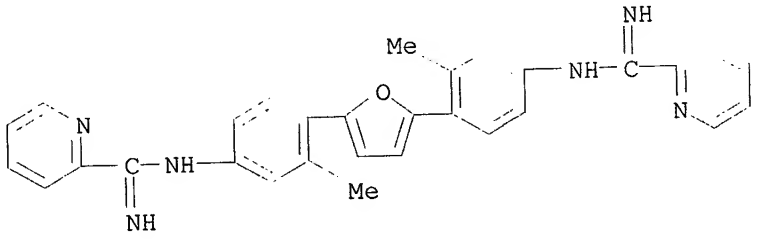
RN 347191-04-2 USPATFULL
CN Cyclohexanecarboximidamide, N,N''-(2,5-furandiyldi-4,1-phenylene)bis- (9CI) (CA INDEX NAME)



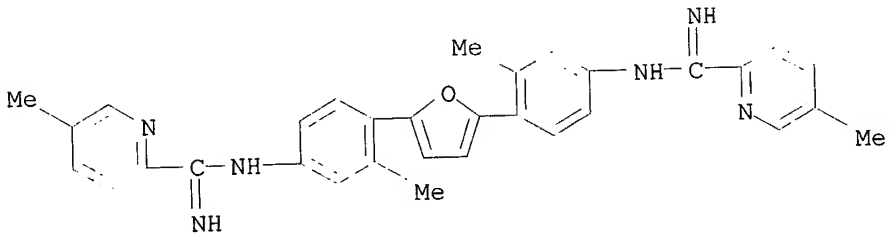
RN 347191-07-5 USPATFULL
CN Benzenecarboximidamide, N,N''-[2,5-furandiylbis(3-methyl-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



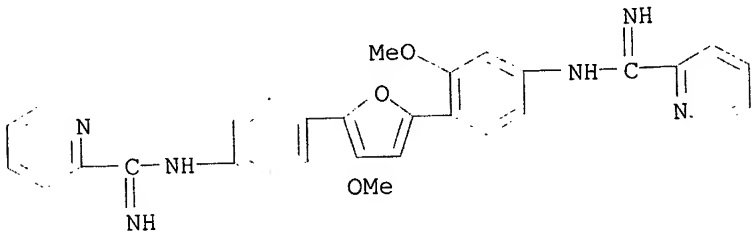
RN 347191-09-7 USPATFULL
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3-methyl-4;1-phenylene)]bis- (9CI) (CA INDEX NAME)



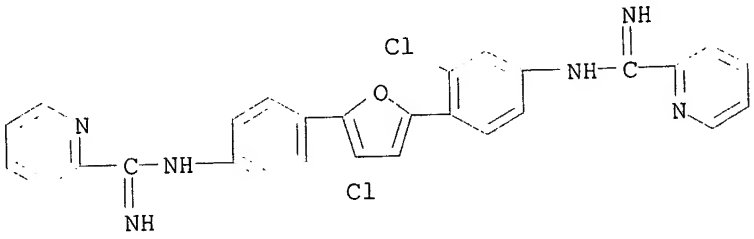
RN 347191-14-4 USPATFULL
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3-methyl-4,1-phenylene)]bis[5-methyl- (9CI) (CA INDEX NAME)



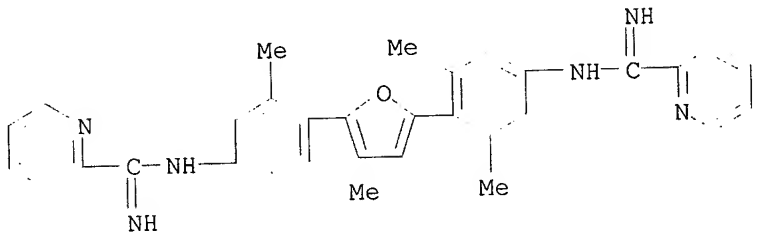
RN 347191-16-6 USPATFULL
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3-methoxy-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



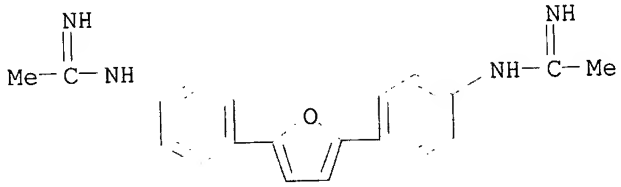
RN 347191-18-8 USPATFULL
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3-chloro-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



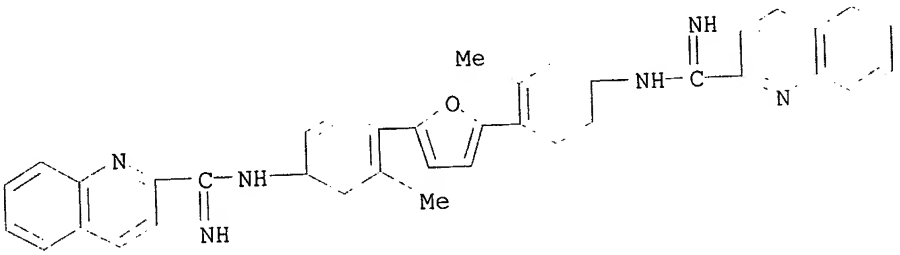
RN 347191-20-2 USPATFULL
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3,5-dimethyl-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



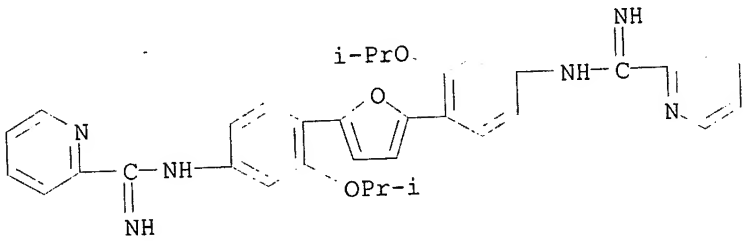
RN 423165-06-4 USPATFULL
CN Ethanimidamide, N,N''-(2,5-furandiyldi-4,1-phenylene)bis- (9CI) (CA INDEX NAME)



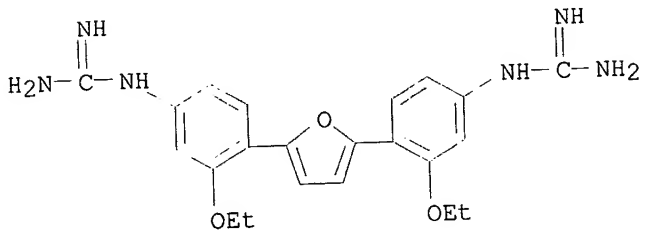
RN 423165-09-7 USPATFULL
CN 2-Quinolinecarboximidamide, N,N''-[2,5-furandiylbis(3-methyl-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



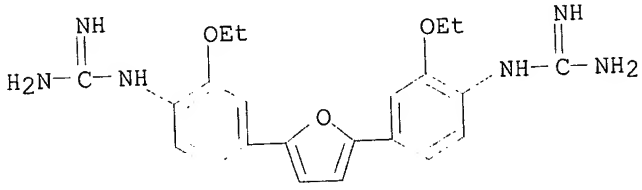
RN 423165-22-4 USPATFULL
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis[3-(1-methylethoxy)-4,1-phenylene]]bis- (9CI) (CA INDEX NAME)



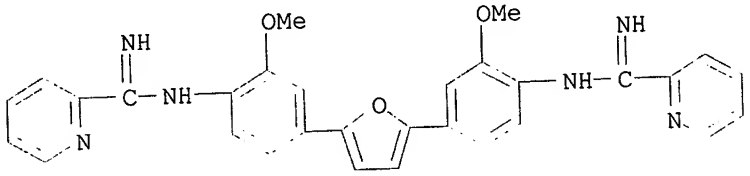
RN 423165-25-7 USPATFULL
CN Guanidine, N,N'''-[2,5-furandiylbis(3-ethoxy-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



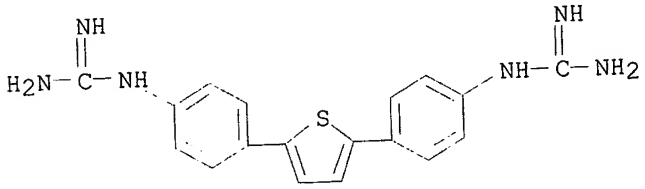
RN 423165-28-0 USPATFULL
CN Guanidine, N,N'''-[2,5-furandiylbis(2-ethoxy-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



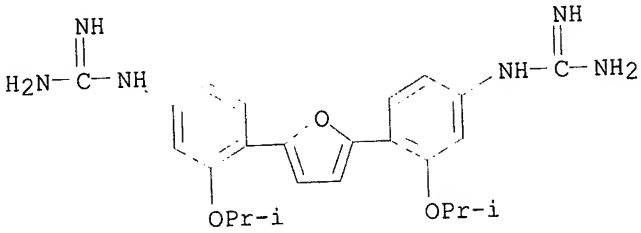
RN 423165-29-1 USPATFULL
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(2-methoxy-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



RN 423165-31-5 USPATFULL
CN Guanidine, N,N'''-(2,5-thiophenediyldi-4,1-phenylene)bis- (9CI) (CA INDEX NAME)

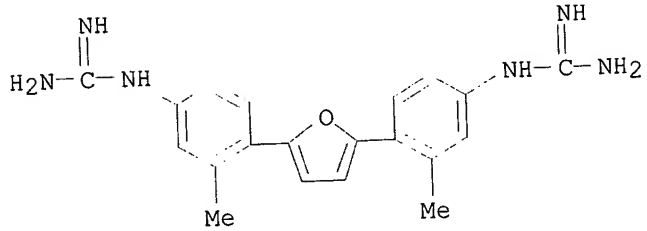


RN 423165-62-2 USPATFULL
CN Guanidine, N,N'''-[2,5-furandiylbis[3-(1-methylethoxy)-4,1-phenylene]]bis- (9CI) (CA INDEX NAME)

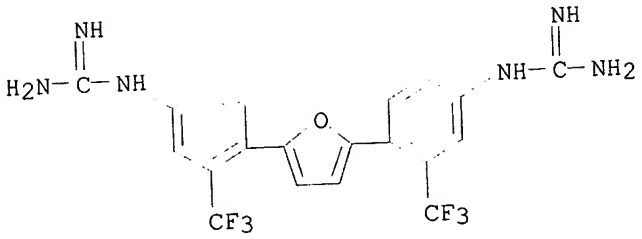


IT **423165-10-0 423165-11-1 423165-12-2**
423165-16-6 423165-17-7 423165-18-8
423165-19-9 423165-20-2 423165-21-3
423165-23-5 423165-24-6 423165-26-8
423165-27-9 423165-30-4
(reversed amidines for treating, preventing, or inhibiting leishmaniasis)

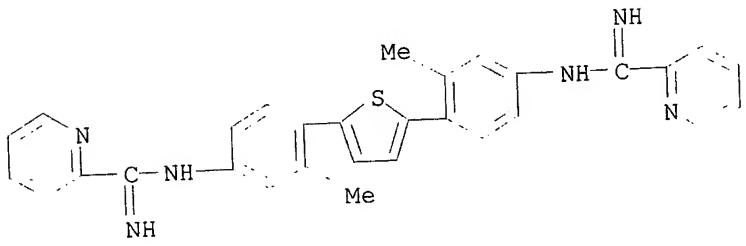
RN 423165-10-0 USPATFULL
CN Guanidine, N,N'''-[2,5-furandiylbis(3-methyl-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



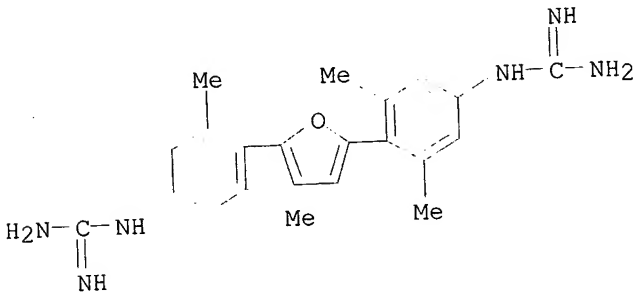
RN 423165-11-1 USPATFULL
CN Guanidine, N,N'''-[2,5-furandiylbis[3-(trifluoromethyl)-4,1-phenylene]]bis- (9CI) (CA INDEX NAME)



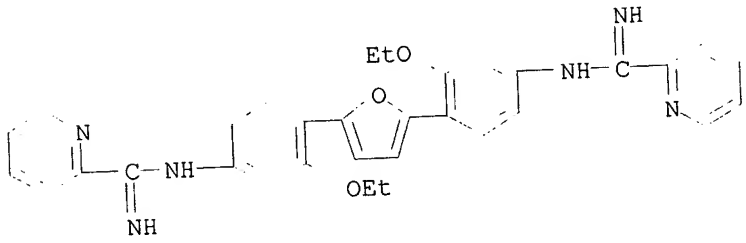
RN 423165-12-2 USPATFULL
CN 2-Pyridinecarboximidamide, N,N''-[2,5-thiophenediylbis(3-methyl-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



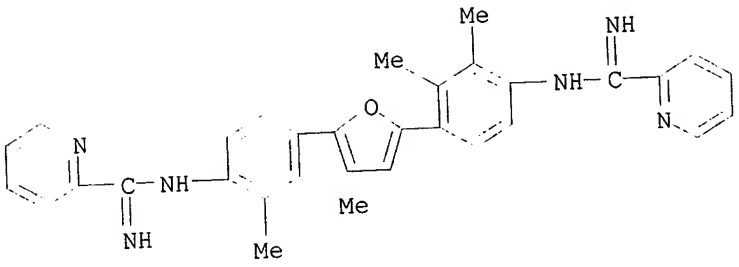
RN 423165-16-6 USPATFULL
CN Guanidine, N,N'''-[2,5-furandiylbis(3,5-dimethyl-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



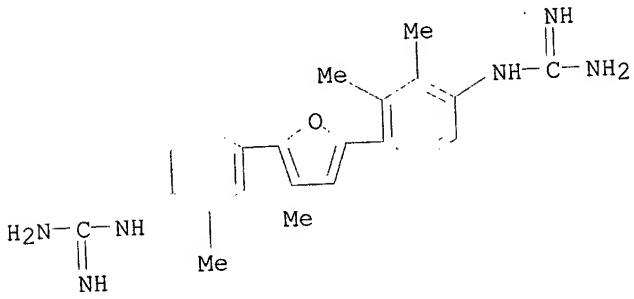
RN 423165-17-7 USPATFULL
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3-ethoxy-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



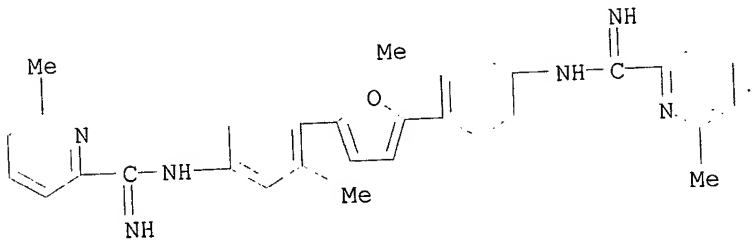
RN 423165-18-8 USPATFULL
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(2,3-dimethyl-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



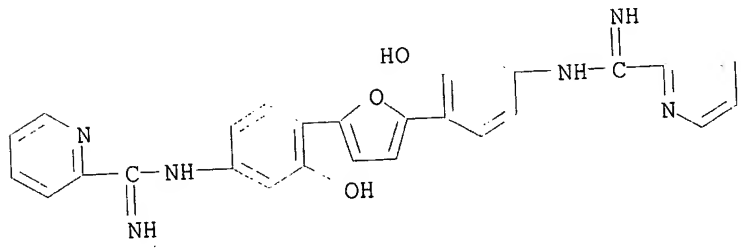
RN 423165-19-9 USPATFULL
CN Guanidine, N,N'''-[2,5-furandiylbis(2,3-dimethyl-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



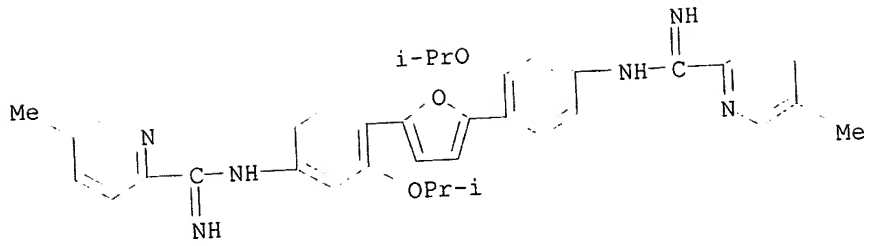
RN 423165-20-2 USPATFULL
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3-methyl-4,1-phenylene)]bis[6-methyl- (9CI) (CA INDEX NAME)



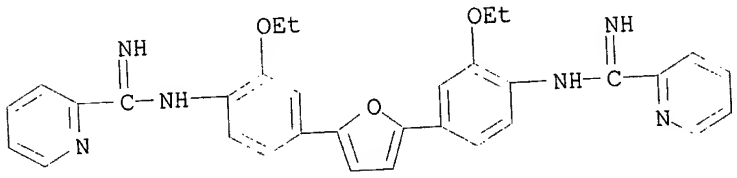
RN 423165-21-3 USPATFULL
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3-hydroxy-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



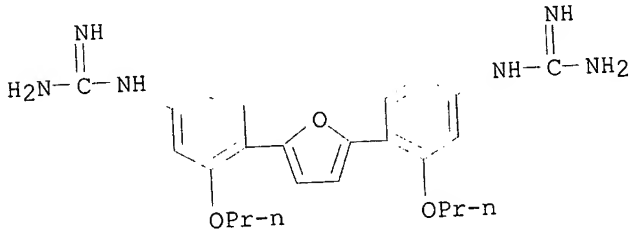
RN 423165-23-5 USPATFULL
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis[3-(1-methylethoxy)-4,1-phenylene]]bis[5-methyl- (9CI) (CA INDEX NAME)



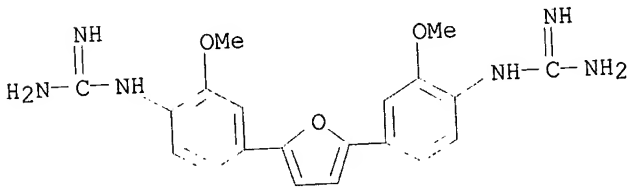
RN 423165-24-6 USPATFULL
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(2-ethoxy-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



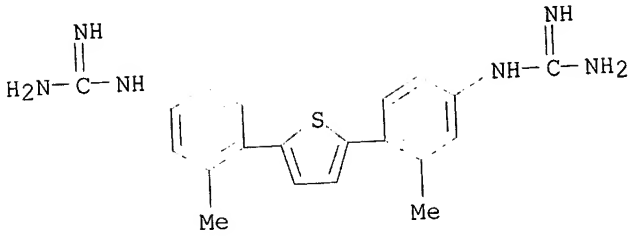
RN 423165-26-8 USPATFULL
CN Guanidine, N,N'''-[2,5-furandiylbis(3-propoxy-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



RN 423165-27-9 USPATFULL
CN Guanidine, N,N'''-[2,5-furandiylbis(2-methoxy-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)

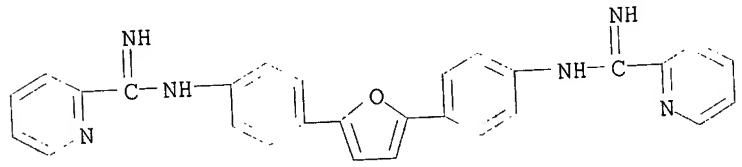


RN 423165-30-4 USPATFULL
CN Guanidine, N,N'''-[2,5-thiophenediylbis(3-methyl-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



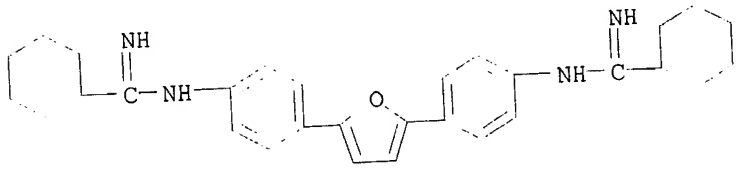
IT **347191-00-8P 347191-05-3P 347191-08-6P**
347191-11-1P 347191-15-5P 347191-17-7P
347191-19-9P 347191-21-3P 423165-54-2P
423165-55-3P 423165-56-4P 423165-57-5P
423165-58-6P 423165-59-7P 423165-61-1P
423165-64-4P 423165-66-6P 423165-69-9P
423165-71-3P 423165-74-6P
(reversed amidines for treating, preventing, or inhibiting leishmaniasis)

RN 347191-00-8 USPATFULL
CN 2-Pyridinecarboximidamide, N,N''-(2,5-furandiyldi-4,1-phenylene)bis-, hydrochloride (2:7) (9CI) (CA INDEX NAME)



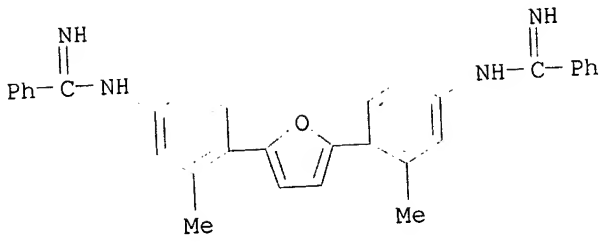
●7/2 HCl

RN 347191-05-3 USPATFULL
CN Cyclohexanecarboximidamide, N,N''-(2,5-furandiyldi-4,1-phenylene)bis-, dihydrochloride (9CI) (CA INDEX NAME)



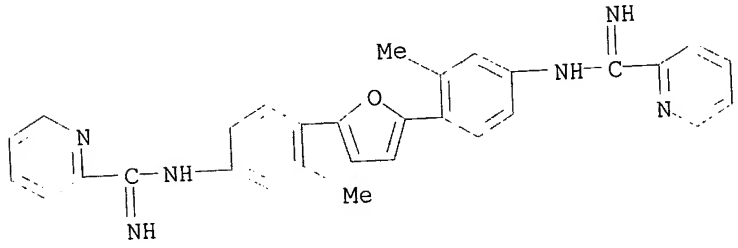
●2 HCl

RN 347191-08-6 USPATFULL
CN Benzenecarboximidamide, N,N''-[2,5-furandiylbis(3-methyl-4,1-phenylene)]bis-, dihydrochloride (9CI) (CA INDEX NAME)



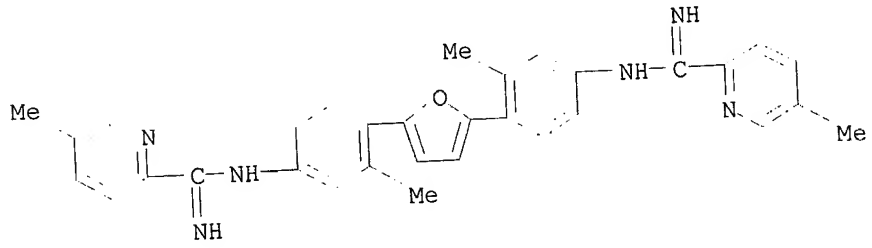
●2 HCl

RN 347191-11-1 USPATFULL
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3-methyl-4,1-phenylene)]bis-, hydrochloride (2:7) (9CI) (CA INDEX NAME)



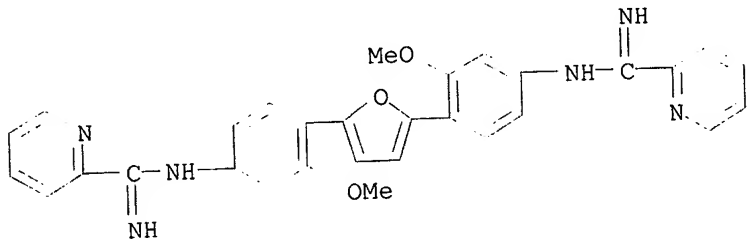
●7/2 HCl

RN 347191-15-5 USPATFULL
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3-methyl-4,1-phenylene)]bis[5-methyl-, hydrochloride (4:13) (9CI) (CA INDEX NAME)



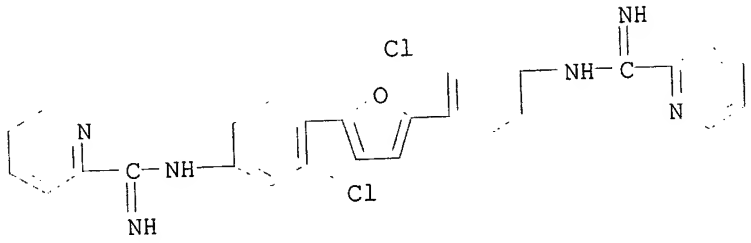
●13/4 HCl

RN 347191-17-7 USPATFULL
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3-methoxy-4,1-phenylene)]bis-, dihydrochloride (9CI) (CA INDEX NAME)



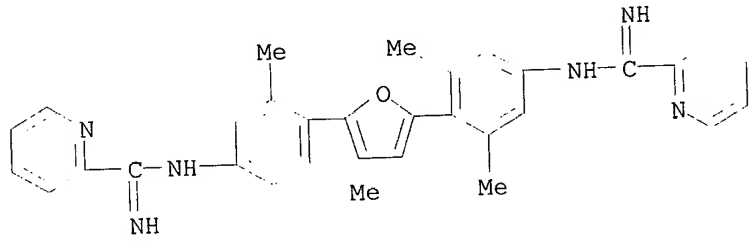
●2 HCl

RN 347191-19-9 USPATFULL
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3-chloro-4,1-phenylene)]bis-, dihydrochloride (9CI) (CA INDEX NAME)



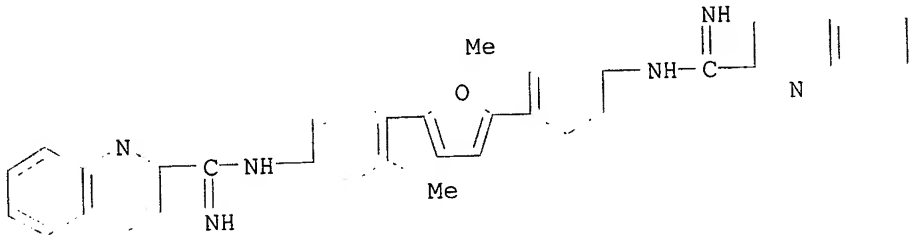
●2 HCl

RN 347191-21-3 USPATFULL
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3,5-dimethyl-4,1-phenylene)]bis-, hydrochloride (4:15) (9CI) (CA INDEX NAME)



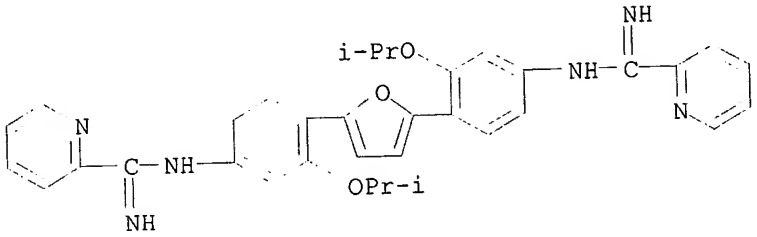
●15/4 HCl

RN 423165-54-2 USPATFULL
CN 2-Quinolinecarboximidamide, N,N''-[2,5-furandiylbis(3-methyl-4,1-phenylene)]bis-, dihydrochloride (9CI) (CA INDEX NAME)



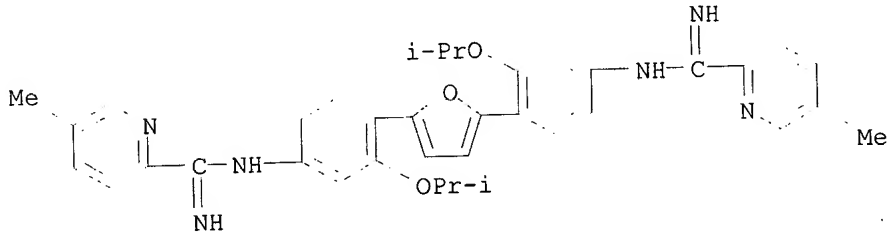
●2 HCl

RN 423165-55-3 USPATFULL
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis[3-(1-methylethoxy)-4,1-phenylene]]bis-, dihydrochloride (9CI) (CA INDEX NAME)



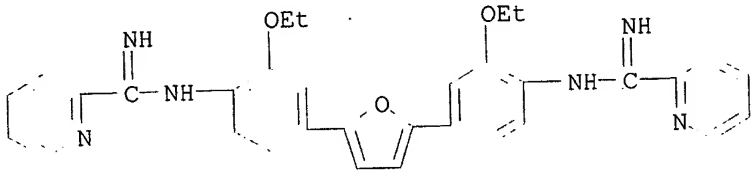
●2 HCl

RN 423165-56-4 USPATFULL
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis[3-(1-methylethoxy)-4,1-phenylene]]bis[5-methyl-, dihydrochloride (9CI) (CA INDEX NAME)



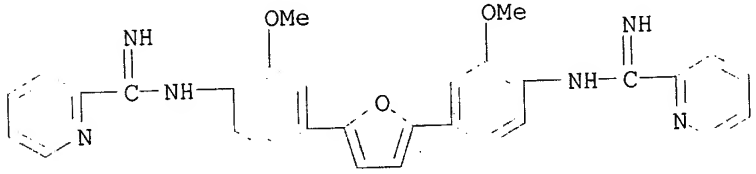
●2 HCl

RN 423165-57-5 USPATFULL
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(2-ethoxy-4,1-phenylene)]bis-, dihydrochloride (9CI) (CA INDEX NAME)



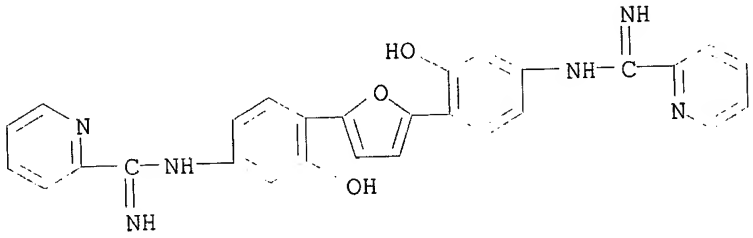
●2 HCl

RN 423165-58-6 USPATFULL
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(2-methoxy-4,1-phenylene)]bis-, dihydrochloride (9CI) (CA INDEX NAME)



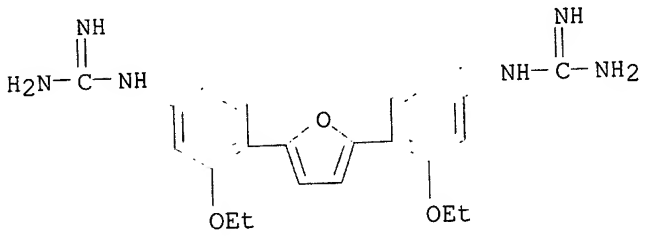
●2 HCl

RN 423165-59-7 USPATFULL
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3-hydroxy-4,1-phenylene)]bis-, dihydrochloride (9CI) (CA INDEX NAME)



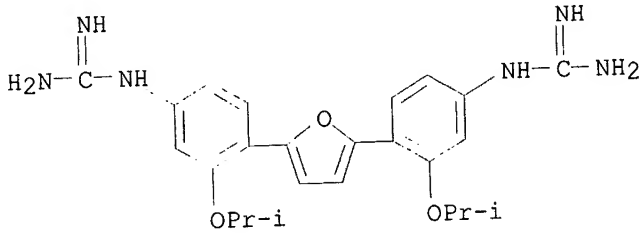
●2 HCl

RN 423165-61-1 USPATFULL
CN Guanidine, N,N'''-[2,5-furandiylbis(3-ethoxy-4,1-phenylene)]bis-, dihydrochloride (9CI) (CA INDEX NAME)



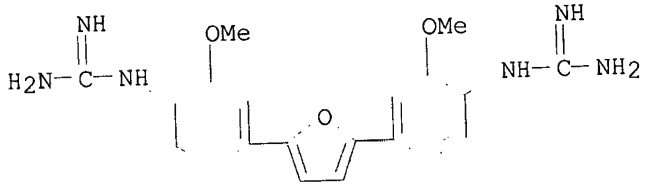
●2 HCl

RN 423165-64-4 USPATFULL
CN Guanidine, N,N'''-[2,5-furandiylbis[3-(1-methylethoxy)-4,1-phenylene]]bis-, dihydrochloride (9CI) (CA INDEX NAME)



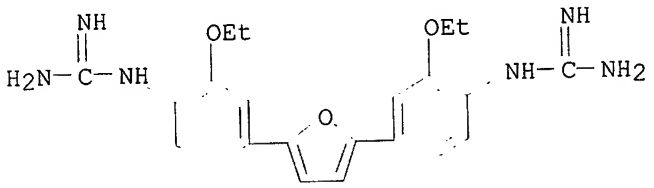
●2 HCl

RN 423165-66-6 USPATFULL
CN Guanidine, N,N'''-[2,5-furandiylbis(2-methoxy-4,1-phenylene)]bis-, dihydrochloride (9CI) (CA INDEX NAME)



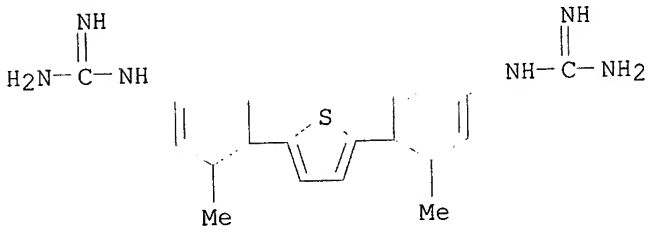
●2 HCl

RN 423165-69-9 USPATFULL
CN Guanidine, N,N'''-[2,5-furandiylbis(2-ethoxy-4,1-phenylene)]bis-, dihydrochloride (9CI) (CA INDEX NAME)



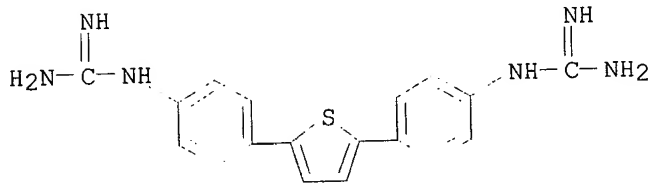
●2 HCl

RN 423165-71-3 USPATFULL
CN Guanidine, N,N'''-[2,5-thiophenediylbis(3-methyl-4,1-phenylene)]bis-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

RN 423165-74-6 USPATFULL
CN Guanidine, N,N'''-(2,5-thiophenediyldi-4,1-phenylene)bis-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

=> fil hcaplus
FILE 'HCAPLUS' ENTERED AT 18:09:29 ON 13 FEB 2003
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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FILE COVERS 1907 - 13 Feb 2003 VOL 138 ISS 7
FILE LAST UPDATED: 12 Feb 2003 (20030212/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d all hitstr tot l12

L12 ANSWER 1 OF 5 HCAPLUS COPYRIGHT 2003 ACS
AN 2002:555455 HCAPLUS
DN 137:109199
TI Preparation of bis(amidino- and guanidinophenyl)furans and analogs as microbicides
IN **Boykin, David; Tidwell, Richard R.; Wilson, W. David; Perfect, John R.; Stephens, Chad E.**
PA University of North Carolina at Chapel Hill, USA; Georgia State University Research Foundation, Inc.
SO PCT Int. Appl., 36 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM C07D
CC 27-6 (Heterocyclic Compounds (One Hetero Atom))
Section cross-reference(s): 1
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002057224	A2	20020725	WO 2001-US47238	20011106
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	US 2002156098	A1	20021024	US 2001-985590	20011105
PRAI	US 2000-246244P	P	20001106		
	US 2000-246330P	P	20001107		
	US 2001-288428P	P	20010504		

OS MARPAT 137:109199
AB Z[Z1NHC(:NR5)R6]2 [I; R5 = H, alkyl, aryl; R6 = H, alkyl, aryl, NR7R8; R7,R8 = H, alkyl, aryl; Z = furan-, thiophene-, or pyrrole-2,5-diyl; Z1 = (un)substituted 1,4-phenylene] were prepd. Thus, 2,5-bis(tributylstannyl)furan was condensed with 2-bromo-5-nitrotoluene and the product reduced to give 2,5-bis(4-amino-2-methylphenyl)furan. Similarly prepd. 2,5-bis(4-aminophenyl)furan was amidated by BzCl and the product converted in 2 steps to I (R5 = H, R6 = Ph, Z = furan-2,5-diyl, Z1 = 1,4-phenylene). Data for biol. activity of I were given.
ST amidinophenylfuran prepn microbicide; bactericide amidinophenylfuran prepn; fungicide amidinophenylfuran prepn; protozoacide amidinophenylfuran prepn
IT Aspergillus
Candida albicans

Cryptococcus neoformans
Cryptosporidium parvum
Fusarium solani
Giardia lamblia
Mycobacterium tuberculosis
Plasmodium (malarial genus)
Pneumocystis carinii
Toxoplasma gondii
Trypanosoma
(infection; treatment; prepn. of bis(amidino- and guanidinophenyl)furans and analogs as microbicides)

IT Antibacterial agents
Fungicides
Human
Protozoacides
(prepn. of bis(amidino- and guanidinophenyl)furans and analogs as microbicides)

IT **347190-93-6P 347190-94-7P 347190-95-8P**
347190-96-9P 347190-97-0P 347190-98-1P
347190-99-2P 347191-00-8P 347191-02-0P
347191-03-1P 347191-04-2P 347191-05-3P
347191-06-4P 347191-07-5P 347191-08-6P
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347191-18-8P 347191-19-9P 347191-20-2P
347191-21-3P 423165-09-7P 423165-12-2P
423165-54-2P 443797-77-1P 443797-78-2P
443797-79-3P 443797-80-6P 443797-81-7P
443797-83-9P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of bis(amidino- and guanidinophenyl)furans and analogs as microbicides)

IT 98-88-4, Benzoyl chloride 100-70-9, 2-Cyanopyridine 874-60-2, 4-Methylbenzoyl chloride 939-26-4, 2-(Bromomethyl)naphthalene 1620-77-5, 2-Cyano-5-methylpyridine 7149-70-4, 2-Bromo-5-nitrotoluene 193361-76-1, 2,5-Bis(tributylstannyl)furan
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of bis(amidino- and guanidinophenyl)furans and analogs as microbicides)

IT 5346-38-3P, 2-Thiocarbamoylpyridine 53715-17-6P 56297-30-4P, 2,5-Bis(4-nitrophenyl)furan 251577-90-9P 334017-98-0P 347190-78-7P
347190-79-8P 347190-80-1P 347190-81-2P 347190-82-3P 347190-83-4P
347190-84-5P 347190-85-6P 347190-86-7P **347190-87-8P**
347190-88-9P 347190-89-0P 347190-90-3P
347190-91-4P 347190-92-5P 347191-01-9P 347191-10-0P
347191-22-4P 347191-23-5P 347191-24-6P 347191-25-7P 443797-82-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of bis(amidino- and guanidinophenyl)furans and analogs as microbicides)

IT **347190-93-6P 347190-94-7P 347190-95-8P**
347190-96-9P 347190-97-0P 347190-98-1P
347190-99-2P 347191-00-8P 347191-02-0P
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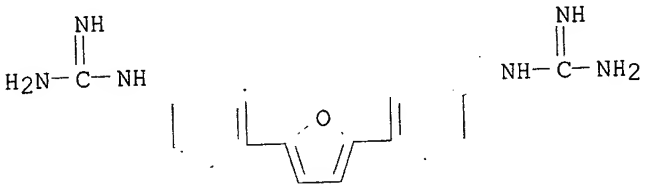
423165-54-2P 443797-77-1P 443797-78-2P
443797-79-3P 443797-80-6P 443797-81-7P

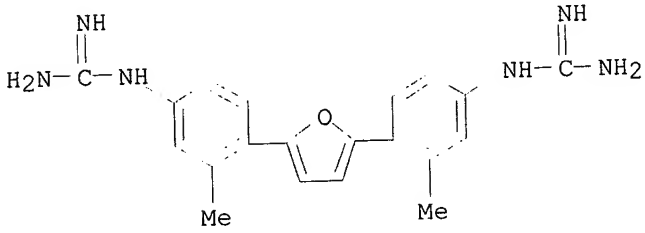
443797-83-9P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of bis(amidino- and guanidinophenyl)furans and analogs as microbicides)

RN 347190-93-6 HCAPLUS
CN Guanidine, N,N'''-(2,5-furandiyldi-4,1-phenylene)bis-, dihydrochloride (9CI) (CA INDEX NAME)



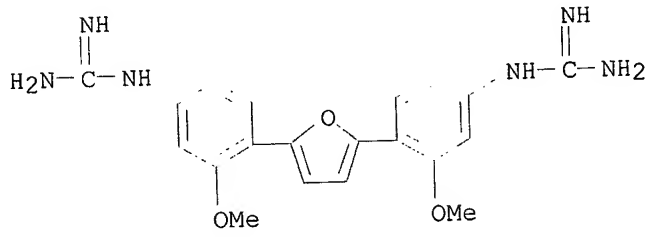
●2 HCl

RN 347190-94-7 HCAPLUS
CN Guanidine, N,N'''-[2,5-furandiylbis(3-methyl-4,1-phenylene)]bis-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

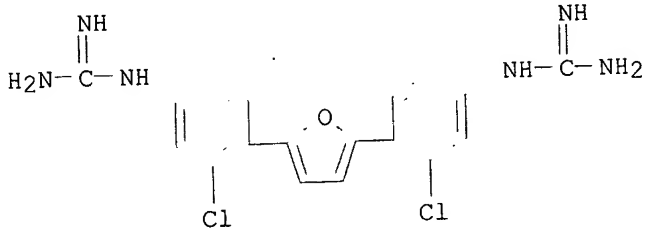
RN 347190-95-8 HCAPLUS
CN Guanidine, N,N'''-[2,5-furandiylbis(3-methoxy-4,1-phenylene)]bis-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

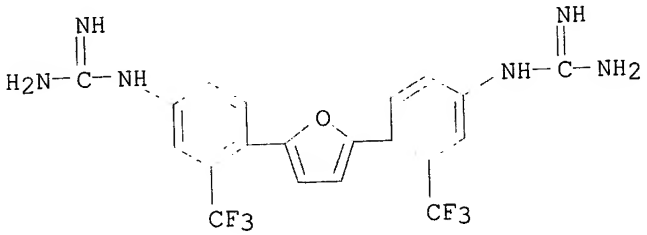
RN 347190-96-9 HCAPLUS

CN Guanidine, N,N'''-[2,5-furandiylbis(3-chloro-4,1-phenylene)]bis-, dihydrochloride (9CI) (CA INDEX NAME)



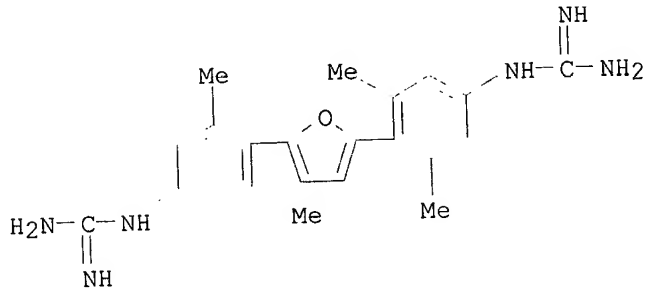
●2 HCl

RN 347190-97-0 HCAPLUS
CN Guanidine, N,N'''-[2,5-furandiylbis[3-(trifluoromethyl)-4,1-phenylene]]bis-, dihydrochloride (9CI) (CA INDEX NAME)



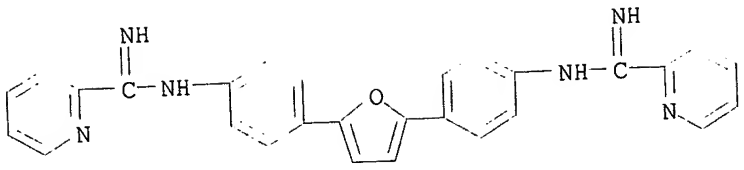
●2 HCl

RN 347190-98-1 HCAPLUS
CN Guanidine, N,N'''-[2,5-furandiylbis(3,5-dimethyl-4,1-phenylene)]bis-, dihydrochloride (9CI) (CA INDEX NAME)

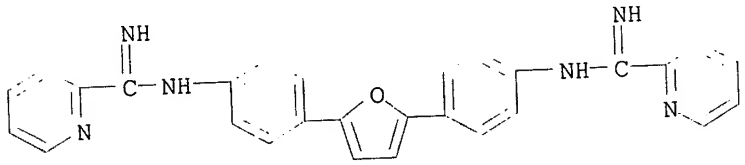


●2 HCl

RN 347190-99-2 HCAPLUS
CN 2-Pyridinecarboximidamide, N,N''-(2,5-furandiyldi-4,1-phenylene)bis- (9CI) (CA INDEX NAME)

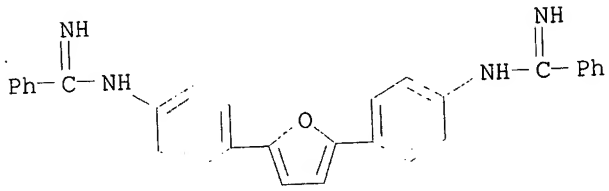


RN 347191-00-8 HCAPLUS
CN 2-Pyridinecarboximidamide, N,N''-(2,5-furandiyldi-4,1-phenylene)bis-, hydrochloride (2:7) (9CI) (CA INDEX NAME)

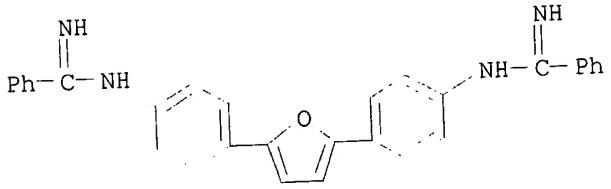


●7/2 HCl

RN 347191-02-0 HCAPLUS
CN Benzenecarboximidamide, N,N''-(2,5-furandiyldi-4,1-phenylene)bis- (9CI) (CA INDEX NAME)

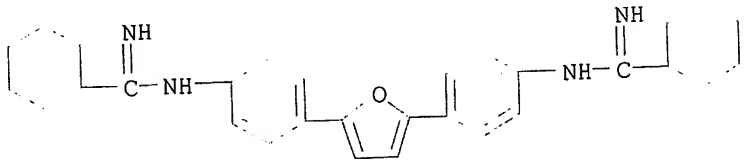


RN 347191-03-1 HCAPLUS
CN Benzenecarboximidamide, N,N''-(2,5-furandiyldi-4,1-phenylene)bis-, dihydrochloride (9CI) (CA INDEX NAME)

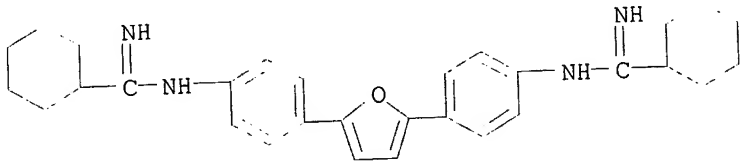


●2 HCl

RN 347191-04-2 HCAPLUS
CN Cyclohexanecarboximidamide, N,N''-(2,5-furandiyldi-4,1-phenylene)bis- (9CI) (CA INDEX NAME)

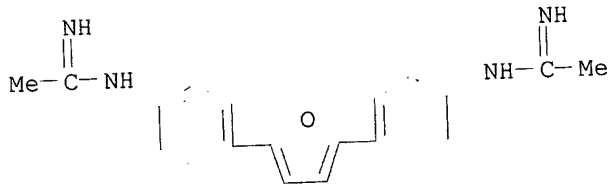


RN 347191-05-3 HCAPLUS
CN Cyclohexanecarboximidamide, N,N''-(2,5-furandiyldi-4,1-phenylene)bis-, dihydrochloride (9CI) (CA INDEX NAME)



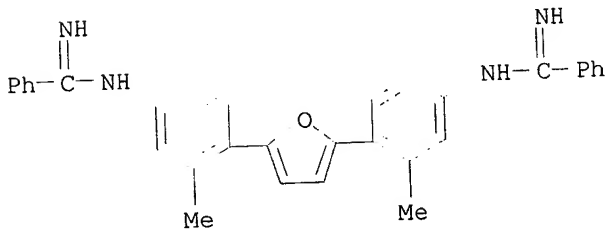
●2 HCl

RN 347191-06-4 HCAPLUS
CN Ethanimidamide, N,N''-(2,5-furandiyldi-4,1-phenylene)bis-, dihydrobromide (9CI) (CA INDEX NAME)

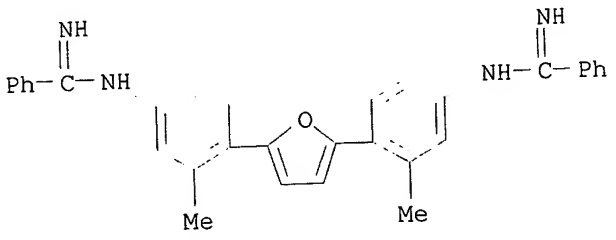


●2 HBr

RN 347191-07-5 HCAPLUS
CN Benzenecarboximidamide, N,N''-[2,5-furandiylbis(3-methyl-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)

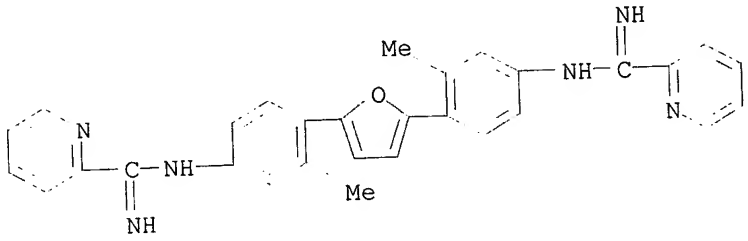


RN 347191-08-6 HCAPLUS
CN Benzenecarboximidamide, N,N''-[2,5-furandiylbis(3-methyl-4,1-phenylene)]bis-, dihydrochloride (9CI) (CA INDEX NAME)

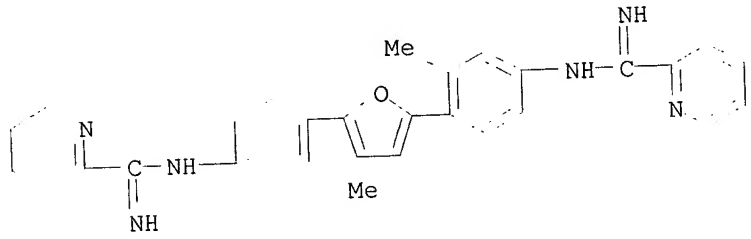


●2 HCl

RN 347191-09-7 HCAPLUS
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3-methyl-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)

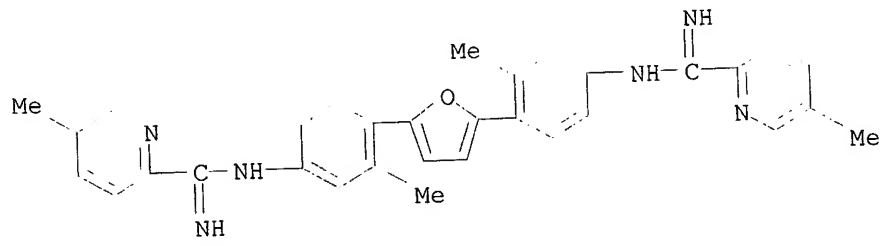


RN 347191-11-1 HCAPLUS
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3-methyl-4,1-phenylene)]bis-, hydrochloride (2:7) (9CI) (CA INDEX NAME)

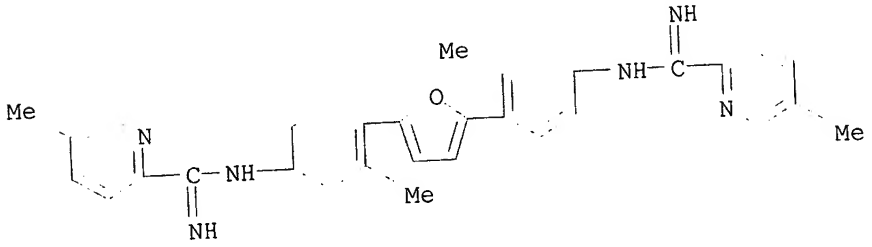


●7/2 HCl

RN 347191-14-4 HCAPLUS
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3-methyl-4,1-phenylene)]bis[5-methyl- (9CI) (CA INDEX NAME)

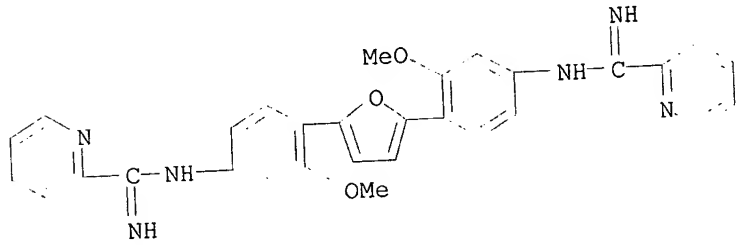


RN 347191-15-5 HCAPLUS
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3-methyl-4,1-phenylene)]bis[5-methyl-, hydrochloride (4:13) (9CI) (CA INDEX NAME)

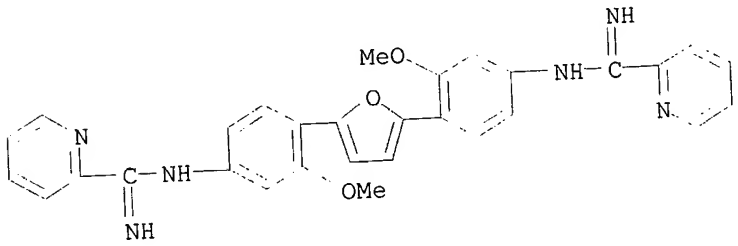


●13/4 HCl

RN 347191-16-6 HCAPLUS
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3-methoxy-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)

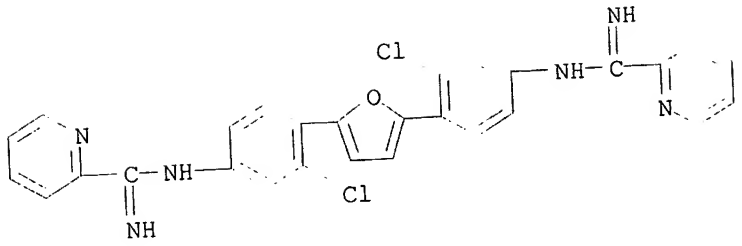


RN 347191-17-7 HCAPLUS
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3-methoxy-4,1-phenylene)]bis-, dihydrochloride (9CI) (CA INDEX NAME)

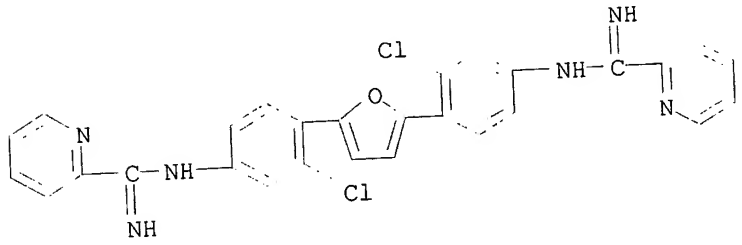


●2 HCl

RN 347191-18-8 HCAPLUS
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3-chloro-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)

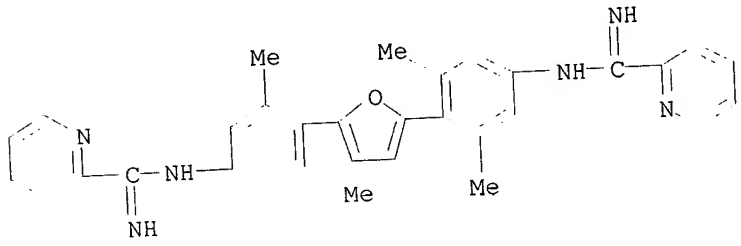


RN 347191-19-9 HCAPLUS
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3-chloro-4,1-phenylene)]bis-, dihydrochloride (9CI) (CA INDEX NAME)

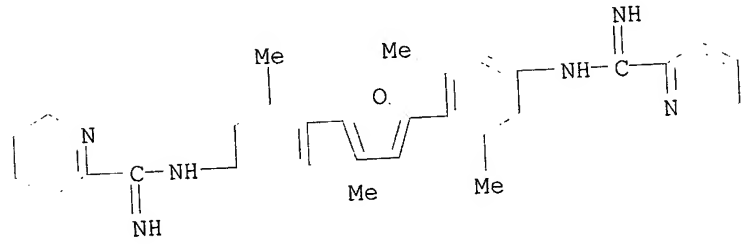


●2 HCl

RN 347191-20-2 HCAPLUS
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3,5-dimethyl-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)

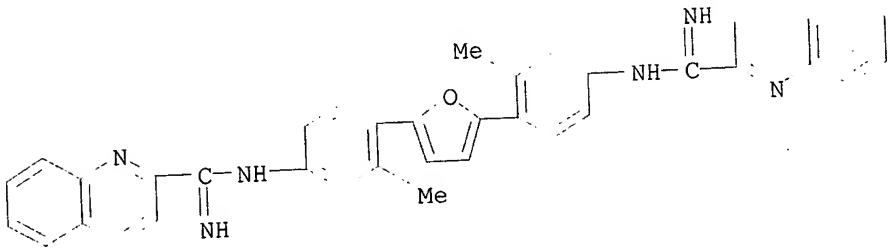


RN 347191-21-3 HCAPLUS
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3,5-dimethyl-4,1-phenylene)]bis-, hydrochloride (4:15) (9CI) (CA INDEX NAME)

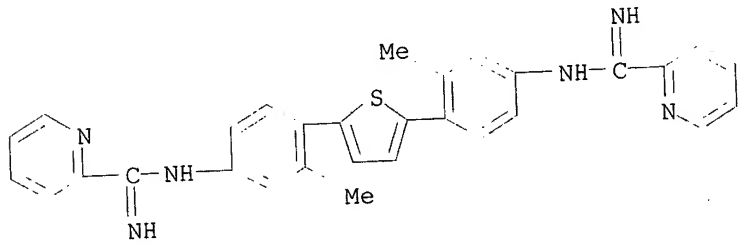


●15/4 HCl

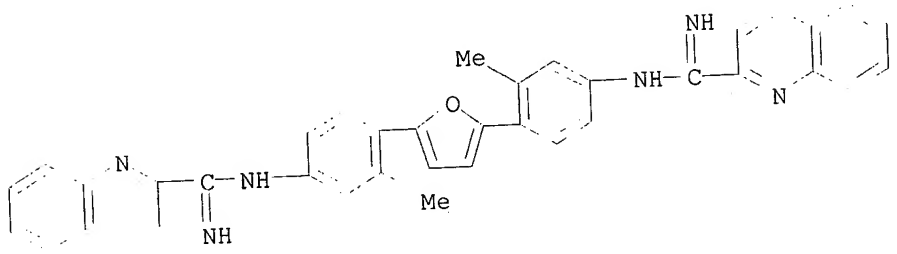
RN 423165-09-7 HCAPLUS
CN 2-Quinolinecarboximidamide, N,N''-[2,5-furandiylbis(3-methyl-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



RN 423165-12-2 HCAPLUS
CN 2-Pyridinecarboximidamide, N,N''-[2,5-thiophenediylbis(3-methyl-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)

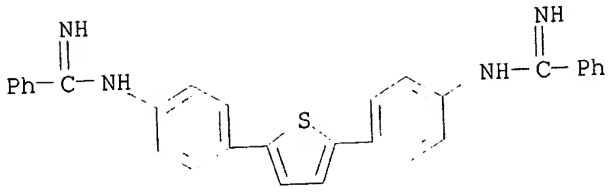


RN 423165-54-2 HCAPLUS
CN 2-Quinolinecarboximidamide, N,N''-[2,5-furandiylbis(3-methyl-4,1-phenylene)]bis-, dihydrochloride (9CI) (CA INDEX NAME)

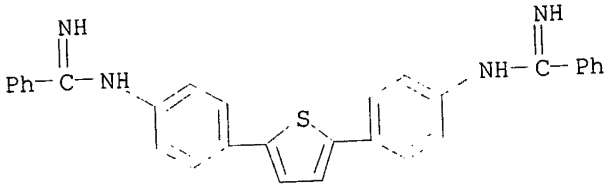


●2 HCl

RN 443797-77-1 HCAPLUS
CN Benzenecarboximidamide, N,N''-(2,5-thiophenediyldi-4,1-phenylene)bis- (9CI) (CA INDEX NAME)

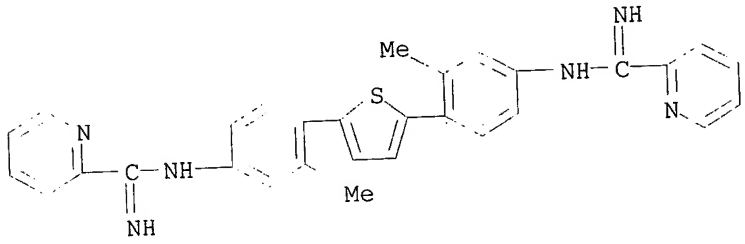


RN 443797-78-2 HCAPLUS
CN Benzenecarboximidamide, N,N''-(2,5-thiophenediyldi-4,1-phenylene)bis-, dihydrochloride (9CI) (CA INDEX NAME)



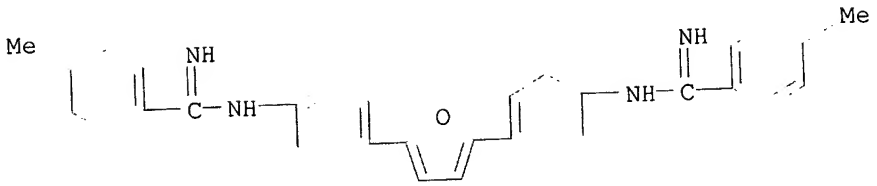
●2 HCl

RN 443797-79-3 HCAPLUS
CN 2-Pyridinecarboximidamide, N,N''-[2,5-thiophenediylbis(3-methyl-4,1-phenylene)]bis-, hydrochloride (2:5) (9CI) (CA INDEX NAME)



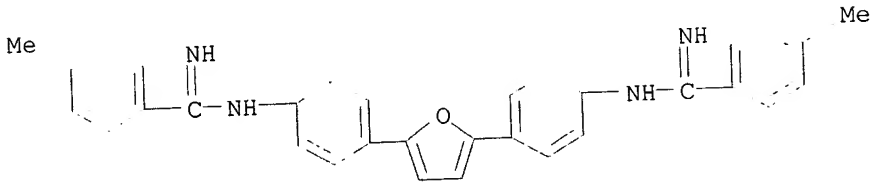
●5/2 HCl

RN 443797-80-6 HCAPLUS
CN Benzenecarboximidamide, N,N''-(2,5-furandiyldi-4,1-phenylene)bis[4-methyl-, dihydrochloride (9CI) (CA INDEX NAME)

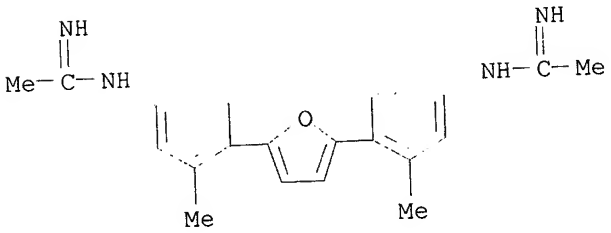


●2 HCl

RN 443797-81-7 HCAPLUS
CN Benzenecarboximidamide, N,N''-(2,5-furandiyldi-4,1-phenylene)bis[4-methyl- (9CI) (CA INDEX NAME)



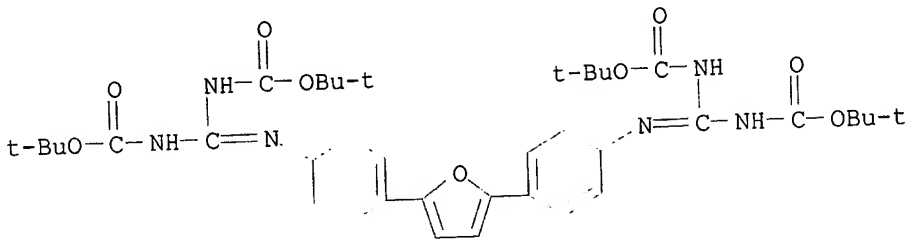
RN 443797-83-9 HCAPLUS
CN Ethanimidamide, N,N''-[2,5-furandiylbis(3-methyl-4,1-phenylene)]bis-, dihydrobromide (9CI) (CA INDEX NAME)



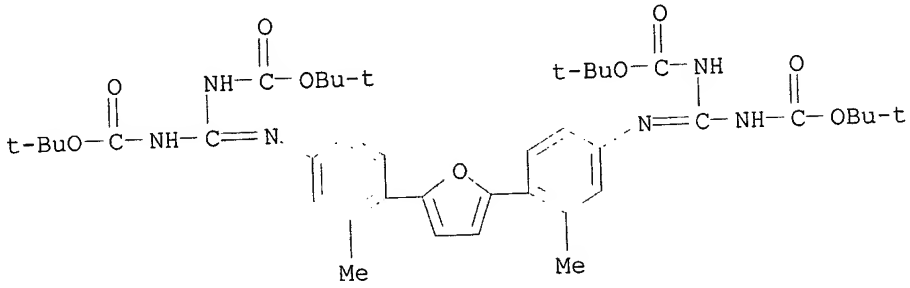
●2 HBr

IT **347190-87-8P 347190-88-9P 347190-89-0P**
347190-90-3P 347190-91-4P 347190-92-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of bis(amidino- and guanidinophenyl)furans and analogs as microbicides)

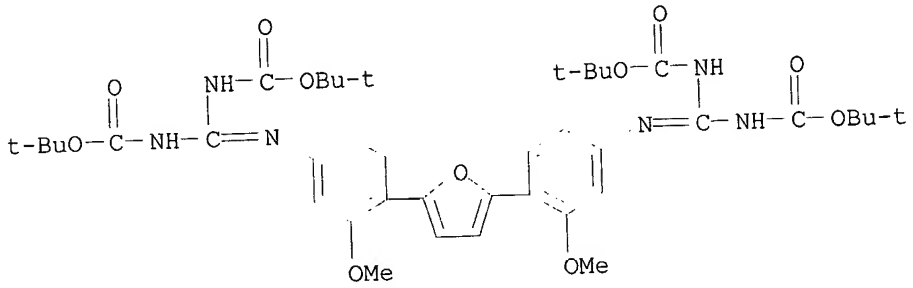
RN 347190-87-8 HCAPLUS
CN Carbamic acid, [2,5-furandiylbis(4,1-phenylenenitrilomethanetetrayl)]tetrakis-, tetrakis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



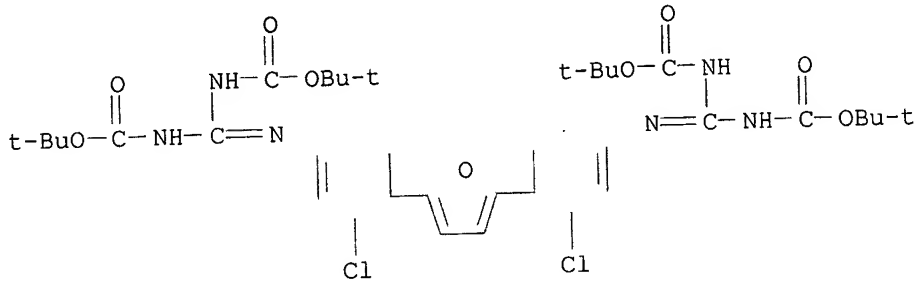
RN 347190-88-9 HCAPLUS
CN Carbamic acid, [2,5-furandiylbis[(3-methyl-4,1-phenylene)nitrilomethanetetrayl]]tetrakis-, tetrakis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



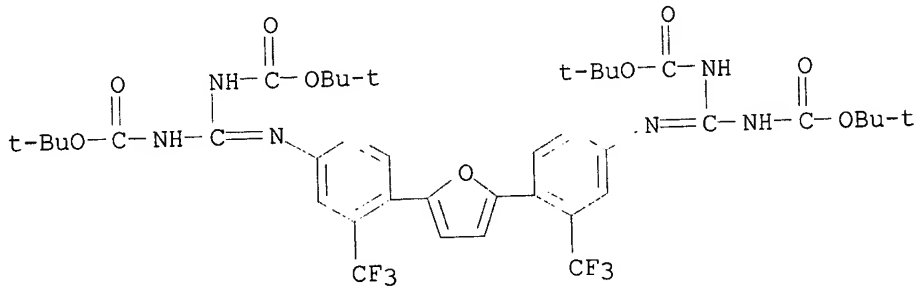
RN 347190-89-0 HCAPLUS
CN Carbamic acid, [2,5-furandiylbis[(3-methoxy-4,1-phenylene)nitrilomethanetetrayl]]tetrakis-, tetrakis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



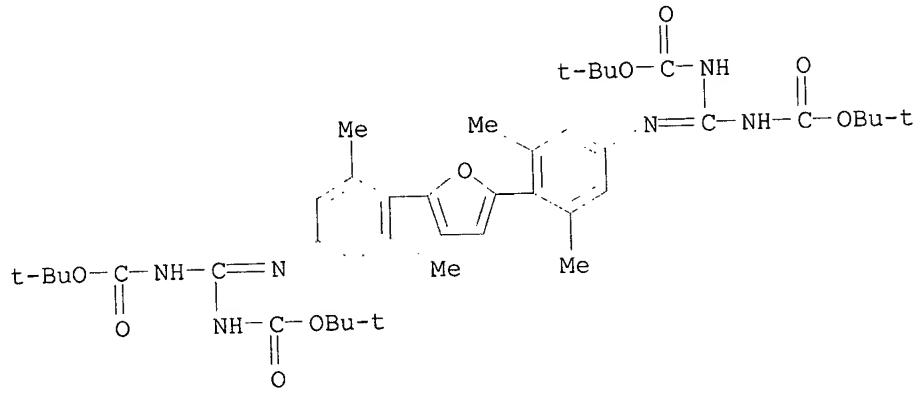
RN 347190-90-3 HCAPLUS
CN Carbamic acid, [2,5-furandiylbis[(3-chloro-4,1-phenylene)nitrilomethanetetrayl]]tetrakis-, tetrakis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



RN 347190-91-4 HCAPLUS
CN Carbamic acid, [2,5-furandiylbis[[3-(trifluoromethyl)-4,1-phenylene]nitrilomethanetetrayl]]tetrakis-, tetrakis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



RN 347190-92-5 HCAPLUS
CN Carbamic acid, [2,5-furandiylbis[(3,5-dimethyl-4,1-phenylene)nitrilomethanetetrayl]]tetrakis-, tetrakis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



L12 ANSWER 2 OF 5 HCAPLUS COPYRIGHT 2003 ACS
AN 2002:539483 HCAPLUS
DN 137:103864
TI Compounds useful for the treatment of bovine viral diarrhea virus and hepatitis C virus infections
IN **Boykin, David; Tidwell, Richard R.**; Stringfellow, David; Brock, Kenny; **Stephens, Chad E.**; Kumar, Arvind; **Wilson, W. David**; Givens, Daniel; Dykstra, Christine
PA University of North Carolina At Chapel Hill, USA; Georgia State University

Research Foundation; Auburn University
SO PCT Int. Appl., 68 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A61K
CC 1-5 (Pharmacology)
Section cross-reference(s): 28

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002055025	A2	20020718	WO 2002-US787	20020111

PI WO 2002055025
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRAI US 2001-261654P P 20010113
OS MARPAT 137:103864
AB The invention relates to novel compds. and methods that are useful in treating members of the Flaviviridae family of viruses. Compds. disclosed in the invention are shown to be effective against bovine viral diarrhea virus and hepatitis C virus infection.
ST antiviral cattle diarrhea virus hepatitis C infection
IT Antiviral agents
Bovine diarrhea virus
Cattle
Embryo, animal
Flaviviridae
Hepatitis C virus
Human
(compds. for treatment of bovine viral diarrhea virus infection and hepatitis C virus infection)
IT Drug delivery systems
(injections, i.v.; compds. for treatment of bovine viral diarrhea virus infection and hepatitis C virus infection)
IT Drug delivery systems
(oral; compds. for treatment of bovine viral diarrhea virus infection and hepatitis C virus infection)
IT **423165-10-0 423165-11-1 423165-30-4**
423165-31-5 433735-86-5 433735-89-8 433735-90-1
442842-40-2 442842-41-3 442842-42-4 442842-43-5 442842-44-6
442842-45-7 442842-46-8 442842-47-9 442842-48-0
442842-49-1 442842-50-4
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(compds. for treatment of bovine viral diarrhea virus infection and hepatitis C virus infection)
IT 95-54-5, 1,2-Phenylenediamine, reactions 7147-77-5, 5-(4-Nitrophenyl)furfural 7149-70-4, 2-Bromo-5-nitrotoluene 52130-32-2, 5-(4-Cyanophenyl)-2-furancarboxaldehyde 68662-17-9 68827-43-0, 4-Amidino-1,2-phenylenediamine 148344-30-3 193361-76-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(compds. for treatment of bovine viral diarrhea virus infection and hepatitis C virus infection)
IT 53715-17-6P 56297-30-4P 251577-90-9P 332360-11-9P 347190-78-7P 347190-79-8P 347190-80-1P 347190-81-2P 347190-82-3P 347190-83-4P 347190-84-5P 347190-85-6P 347190-86-7P **347190-87-8P**

347190-88-9P 347190-89-0P 347190-90-3P
347190-91-4P 347190-92-5P 442842-52-6P 442842-54-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(compds. for treatment of bovine viral diarrhea virus infection and hepatitis C virus infection)

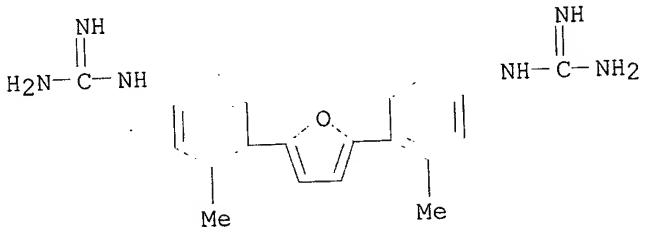
IT **347190-93-6P 347190-94-7P 347190-95-8P**
347190-96-9P 347190-97-0P 347190-98-1P
442842-51-5P 442842-53-7P 442842-55-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(compds. for treatment of bovine viral diarrhea virus infection and hepatitis C virus infection)

IT 9003-99-0, Peroxidase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(in immunoassay; compds. for treatment of bovine viral diarrhea virus infection and hepatitis C virus infection)

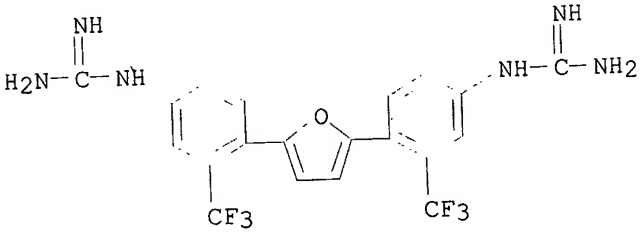
IT 443408-63-7 443408-64-8 443408-65-9
RL: PRP (Properties)
(unclaimed nucleotide sequence; compds. useful for the treatment of bovine viral diarrhea virus and hepatitis C virus infections)

IT **423165-10-0 423165-11-1 423165-30-4**
423165-31-5 442842-45-7 442842-49-1
442842-50-4
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(compds. for treatment of bovine viral diarrhea virus infection and hepatitis C virus infection)

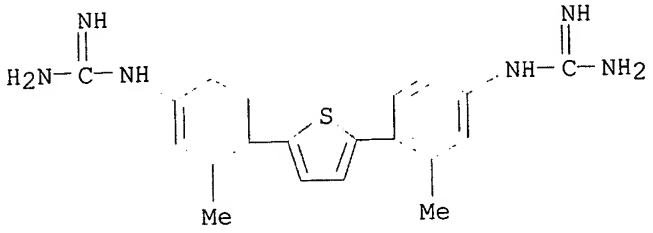
RN 423165-10-0 HCAPLUS
CN Guanidine, N,N'''-[2,5-furandiylbis(3-methyl-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



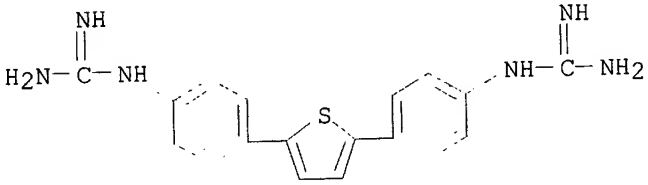
RN 423165-11-1 HCAPLUS
CN Guanidine, N,N'''-[2,5-furandiylbis[3-(trifluoromethyl)-4,1-phenylene]]bis- (9CI) (CA INDEX NAME)



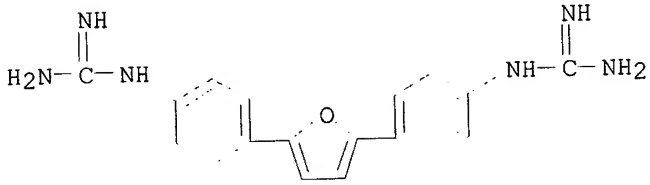
RN 423165-30-4 HCAPLUS
CN Guanidine, N,N'''-[2,5-thiophenediylbis(3-methyl-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



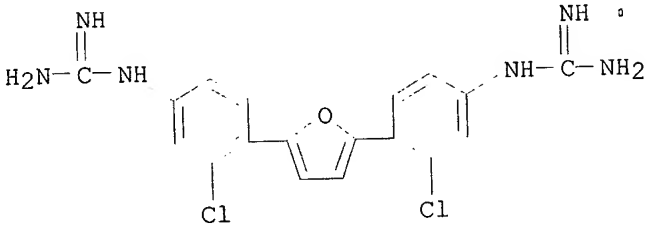
RN 423165-31-5 HCAPLUS
CN Guanidine, N,N'''-(2,5-thiophenediyldi-4,1-phenylene)bis- (9CI) (CA INDEX NAME)



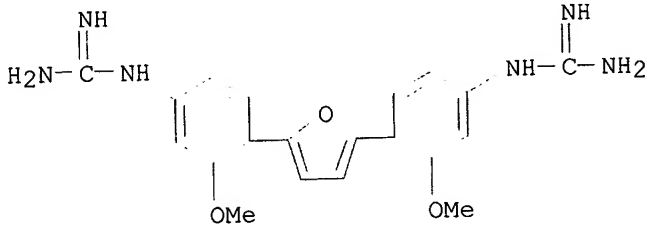
RN 442842-45-7 HCAPLUS
CN Guanidine, N,N'''-(2,5-furandiyldi-4,1-phenylene)bis- (9CI) (CA INDEX NAME)



RN 442842-49-1 HCAPLUS
CN Guanidine, N,N'''-[2,5-furandiylbis(3-chloro-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)

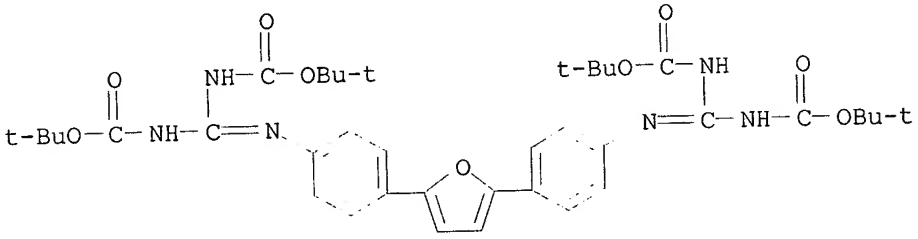


RN 442842-50-4 HCAPLUS
CN Guanidine, N,N'''-[2,5-furandiylbis(3-methoxy-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)

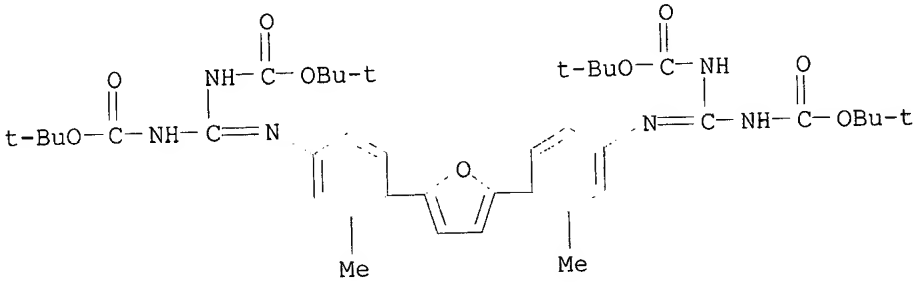


IT **347190-87-8P 347190-88-9P 347190-89-0P**
347190-90-3P 347190-91-4P 347190-92-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(compds. for treatment of bovine viral diarrhea virus infection and hepatitis C virus infection)

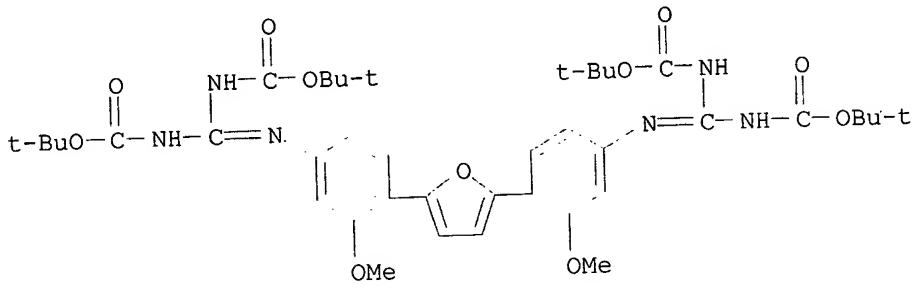
RN 347190-87-8 HCAPLUS
CN Carbamic acid, [2,5-furandiylbis(4,1-phenylenenitrilomethanetetrayl)]tetrakis-, tetrakis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



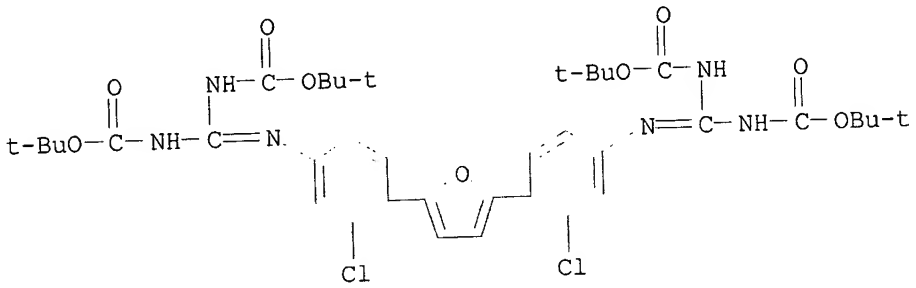
RN 347190-88-9 HCAPLUS
CN Carbamic acid, [2,5-furandiylbis[(3-methyl-4,1-phenylene)nitrilomethanetetrayl]]tetrakis-, tetrakis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



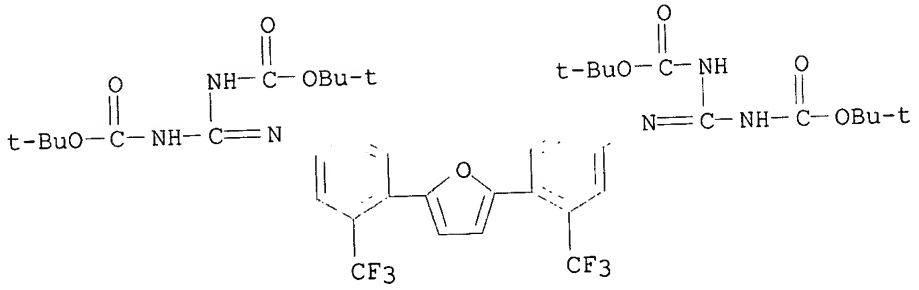
RN 347190-89-0 HCAPLUS
CN Carbamic acid, [2,5-furandiylbis[(3-methoxy-4,1-phenylene)nitrilomethanetetrayl]]tetrakis-, tetrakis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



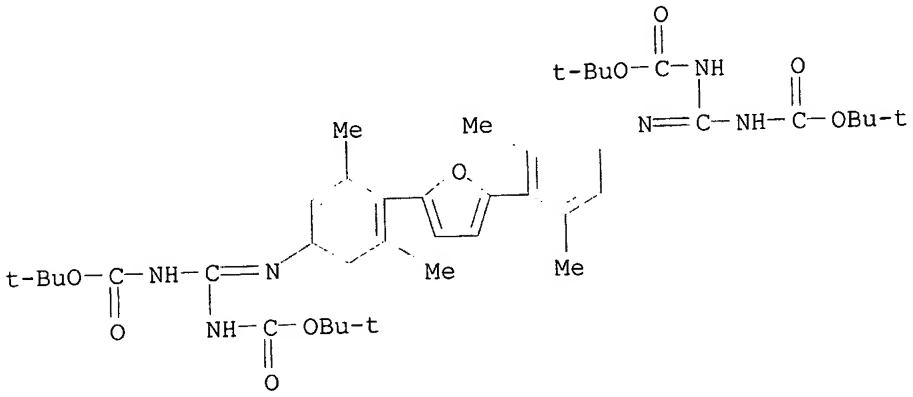
RN 347190-90-3 HCAPLUS
CN Carbamic acid, [2,5-furandiylbis[(3-chloro-4,1-phenylene)nitrilomethanetetrayl]]tetrakis-, tetrakis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



RN 347190-91-4 HCAPLUS
CN Carbamic acid, [2,5-furandiylbis[[3-(trifluoromethyl)-4,1-phenylene]nitrilomethanetetrayl]]tetrakis-, tetrakis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)

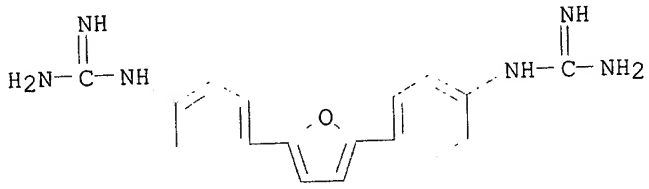


RN 347190-92-5 HCAPLUS
CN Carbamic acid, [2,5-furandiylbis[(3,5-dimethyl-4,1-phenylene)nitrilomethanetetrayl]]tetrakis-, tetrakis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



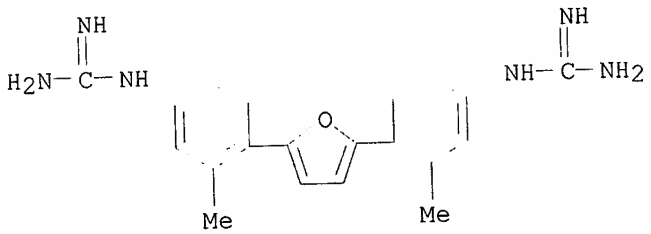
IT **347190-93-6P 347190-94-7P 347190-95-8P**
347190-96-9P 347190-97-0P 347190-98-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(compds. for treatment of bovine viral diarrhea virus infection and hepatitis C virus infection)

RN 347190-93-6 HCAPLUS
CN Guanidine, N,N'''-(2,5-furandiyldi-4,1-phenylene)bis-, dihydrochloride (9CI) (CA INDEX NAME)



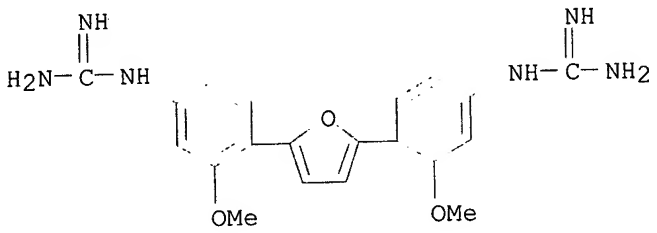
●2 HCl

RN 347190-94-7 HCAPLUS
CN Guanidine, N,N'''-[2,5-furandiylbis(3-methyl-4,1-phenylene)]bis-, dihydrochloride (9CI) (CA INDEX NAME)



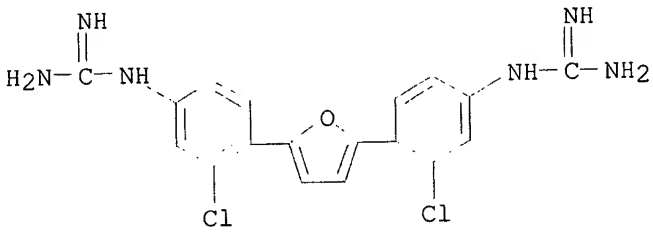
●2 HCl

RN 347190-95-8 HCAPLUS
CN Guanidine, N,N'''-[2,5-furandiylbis(3-methoxy-4,1-phenylene)]bis-, dihydrochloride (9CI) (CA INDEX NAME)



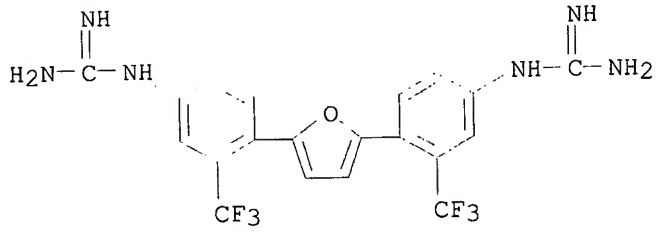
●2 HCl

RN 347190-96-9 HCAPLUS
CN Guanidine, N,N'''-[2,5-furandiylbis(3-chloro-4,1-phenylene)]bis-, dihydrochloride (9CI) (CA INDEX NAME)



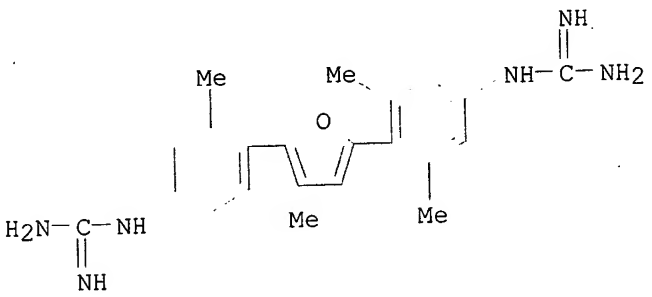
●2 HCl

RN 347190-97-0 HCAPLUS
CN Guanidine, N,N'''-[2,5-furandiylbis[3-(trifluoromethyl)-4,1-phenylene]]bis-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

RN 347190-98-1 HCAPLUS
CN Guanidine, N,N'''-[2,5-furandiylbis(3,5-dimethyl-4,1-phenylene)]bis-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

L12 ANSWER 3 OF 5 HCAPLUS COPYRIGHT 2003 ACS
AN 2002:353451 HCAPLUS
DN 136:363813
TI Reversed amidines and methods of using them for treating, preventing, or inhibiting leishmaniasis
IN Werbovetz, Karl A.; Brendle, James J.; **Boykin, David W.**; **Stephens, Chad E.**
PA U.S. Army Medical Research and Materiel Command, USA
SO PCT Int. Appl., 67 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM C07D405-00
CC 1-5 (Pharmacology)
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002036588	A2	20020510	WO 2001-US42905	20011105
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
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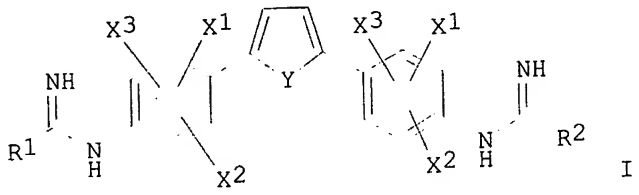
	US 2002156098	A1	20021024	US 2001-985590	20011105
PRAI	US 2000-246277P	P	20001106		
	US 2000-246330P	P	20001107		
	US 2001-288428P	P	20010504		
	US 2000-246244P	P	20001106		
	WO 2001-US42905	W	20011105		

OS MARPAT 136:363813
GI



I

AB Methods are disclosed for treating, preventing or inhibiting leishmaniasis in a subject which comprise administering to the subject a therapeutically effective amt. of at least one compd. I (Y = heteroatom; R1, R2 = H, alkyl, cycloalkyl, heterocycloalkyl, aryl, amino, heteroaryl; X1, X2, X3 = H, alkyl, alkoxy, halo, amino, alkylamino, dialkylamino, acylamino, alkylthio, sulfonyl, cyano, carboxy, alkoxycarbonyl, carbamoyl).

ST heterocyclic deriv reversed amidine leishmaniasis treatment; furan deriv reversed amidine leishmaniasis treatment; thiophene deriv reversed amidine leishmaniasis treatment

IT Leishmania
(leishmaniasis from, cutaneous or mucocutaneous or visceral; reversed amidines for treating, preventing, or inhibiting leishmaniasis)

IT Protozoacides
(leishmanicides; reversed amidines for treating, preventing, or inhibiting leishmaniasis)

IT Drug delivery systems
Leishmania
Leishmania donovani
Leishmania mexicana
Parasiticides
(reversed amidines for treating, preventing, or inhibiting leishmaniasis)

IT Amidines
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(reversed amidines for treating, preventing, or inhibiting leishmaniasis)

IT 7035-69-0P 53715-17-6P 56297-30-4P 57279-70-6P 101793-47-9P
103966-66-1P 251577-90-9P 347190-78-7P 347190-79-8P 347190-80-1P
347190-81-2P 347190-82-3P 347190-83-4P 347190-84-5P 347190-86-7P
423165-32-6P 423165-34-8P 423165-35-9P 423165-36-0P 423165-37-1P
423165-39-3P 423165-42-8P 423165-48-4P 423165-49-5P 423165-50-8P
423165-51-9P 423165-52-0P **423165-60-0P 423165-63-3P**
423165-65-5P 423165-67-7P 423165-70-2P
423165-73-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction; reversed amidines for treating, preventing, or inhibiting leishmaniasis)

IT 75-30-9, 2-Iodopropane 98-88-4, Benzoyl chloride 367-67-9,
2-Bromo-5-nitrobenzotrifluoride 586-78-7, 4-Bromonitrobenzene
610-38-8, 4-Bromo-1,2-dinitrobenzene 6345-68-2 7149-70-4,
2-Bromo-5-nitrotoluene 29682-39-1, 1-Bromo-2-chloro-4-nitrobenzene
52427-05-1, 2-Bromo-5-nitrophenol 53906-84-6 70010-49-0 77337-82-7,
2-Bromo-5-nitroanisole 145483-63-2 180002-24-8 193361-76-1
215175-55-6 347191-10-0 347191-22-4 347191-23-5 347191-24-6
423165-33-7 423165-53-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction; reversed amidines for treating, preventing, or inhibiting leishmaniasis)

IT **347191-02-0P**
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP

(Preparation); RACT (Reactant or reagent); USES (Uses)
(reversed amidines for treating, preventing, or inhibiting leishmaniasis)

IT **347190-99-2P 347191-03-1P 347191-04-2P**
347191-07-5P 347191-09-7P 347191-14-4P
347191-16-6P 347191-18-8P 347191-20-2P
423165-06-4P 423165-09-7P 423165-22-4P
423165-25-7P 423165-28-0P 423165-29-1P
423165-31-5P 423165-62-2P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(reversed amidines for treating, preventing, or inhibiting leishmaniasis)

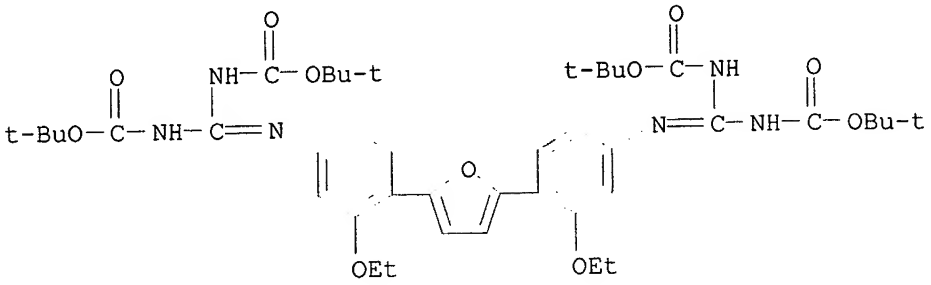
IT **423165-10-0 423165-11-1 423165-12-2**
423165-14-4 423165-15-5 **423165-16-6 423165-17-7**
423165-18-8 423165-19-9 423165-20-2
423165-21-3 423165-23-5 423165-24-6
423165-26-8 423165-27-9 423165-30-4
423165-75-7
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(reversed amidines for treating, preventing, or inhibiting leishmaniasis)

IT 347190-85-6P **347191-00-8P 347191-05-3P**
347191-08-6P 347191-11-1P 347191-15-5P
347191-17-7P 347191-19-9P 347191-21-3P
423165-54-2P 423165-55-3P 423165-56-4P
423165-57-5P 423165-58-6P 423165-59-7P
423165-61-1P 423165-64-4P 423165-66-6P
423165-69-9P 423165-71-3P 423165-74-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(reversed amidines for treating, preventing, or inhibiting leishmaniasis)

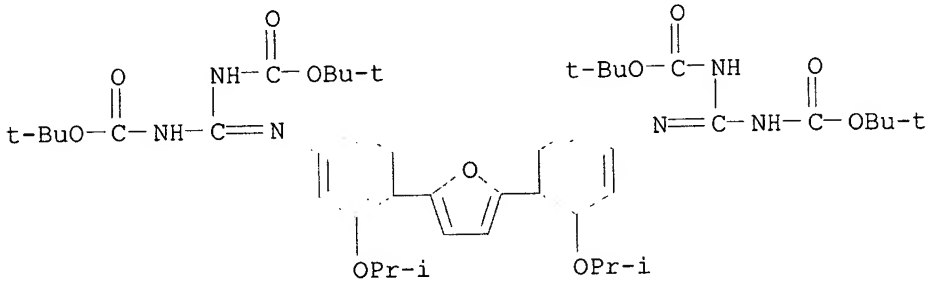
IT 100-33-4, Pentamidine 133-51-7, Meglumine antimoniate 1397-89-3, Amphotericin B 6284-40-8D, Meglumine, antimonite salts 7542-37-2, Paromomycin 16037-91-5, Sodium stibogluconate 58066-85-6, Miltefosine
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(reversed amidines for treating, preventing, or inhibiting leishmaniasis, and use with other agents)

IT **423165-60-0P 423165-63-3P 423165-65-5P**
423165-67-7P 423165-70-2P 423165-73-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction; reversed amidines for treating, preventing, or inhibiting leishmaniasis)

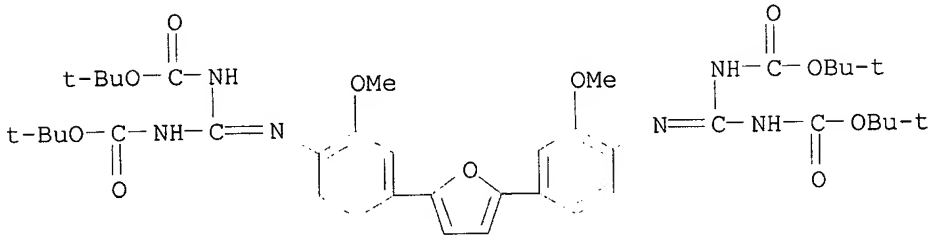
RN 423165-60-0 HCAPLUS
CN Carbamic acid, [2,5-furandiylbis[(3-ethoxy-4,1-phenylene)nitrilomethanetetrayl]]tetrakis-, tetrakis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



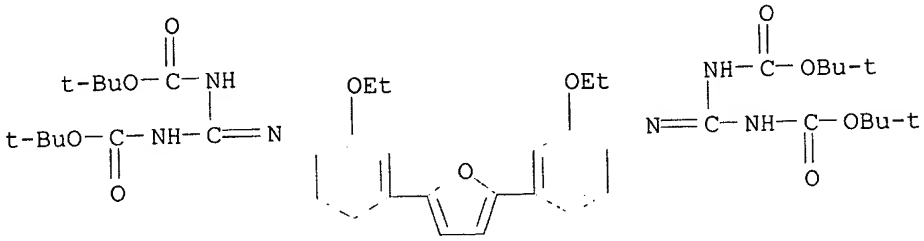
RN 423165-63-3 HCAPLUS
CN Carbamic acid, [2,5-furandiylbis[[3-(1-methylethoxy)-4,1-phenylene]nitrilomethanetetrayl]]tetrakis-, tetrakis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



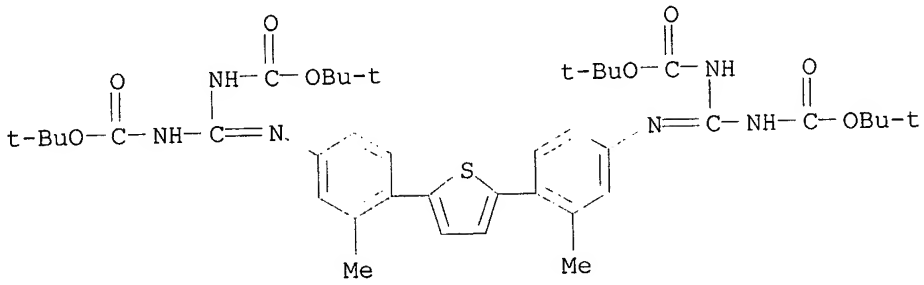
RN 423165-65-5 HCAPLUS
CN Carbamic acid, [2,5-furandiylbis[(2-methoxy-4,1-phenylene)nitrilomethanetetrayl]]tetrakis-, tetrakis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



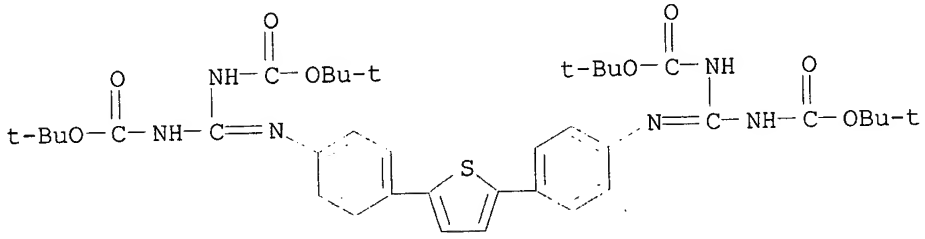
RN 423165-67-7 HCAPLUS
CN Carbamic acid, [2,5-furandiylbis[(2-ethoxy-4,1-phenylene)nitrilomethanetetrayl]]tetrakis-, tetrakis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



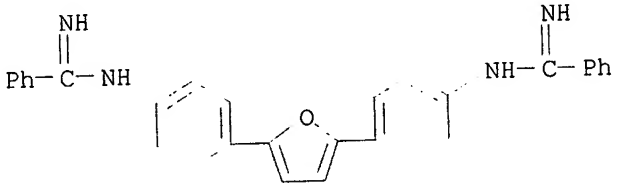
RN 423165-70-2 HCAPLUS
CN Carbamic acid, [2,5-thiophenediylbis[(3-methyl-4,1-phenylene)nitrilomethanetetrayl]]tetrakis-, tetrakis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



RN 423165-73-5 HCAPLUS
CN Carbamic acid, [2,5-thiophenediylbis(4,1-phenylenenitrilomethanetetrayl)]tetrakis-, tetrakis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)

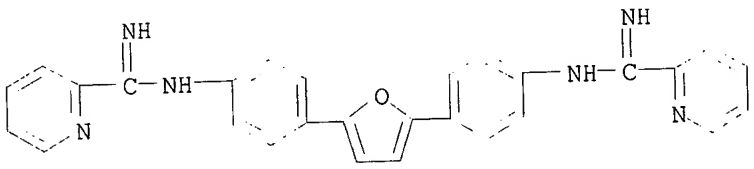


IT **347191-02-0P**
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(reversed amidines for treating, preventing, or inhibiting leishmaniasis)
RN 347191-02-0 HCAPLUS
CN Benzenecarboximidamide, N,N''-(2,5-furandiyldi-4,1-phenylene)bis- (9CI) (CA INDEX NAME)

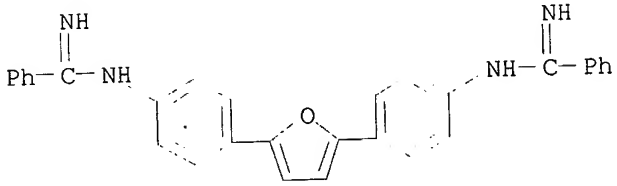


IT **347190-99-2P 347191-03-1P 347191-04-2P**
347191-07-5P 347191-09-7P 347191-14-4P
347191-16-6P 347191-18-8P 347191-20-2P
423165-06-4P 423165-09-7P 423165-22-4P
423165-25-7P 423165-28-0P 423165-29-1P
423165-31-5P 423165-62-2P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(reversed amidines for treating, preventing, or inhibiting leishmaniasis)

RN 347190-99-2 HCAPLUS
CN 2-Pyridinecarboximidamide, N,N''-(2,5-furandiyldi-4,1-phenylene)bis- (9CI) (CA INDEX NAME)

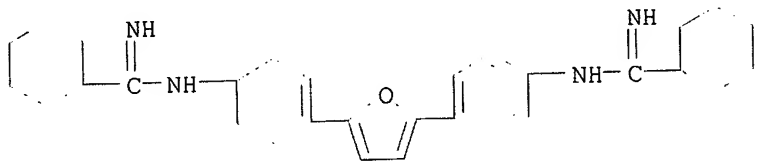


RN 347191-03-1 HCAPLUS
CN Benzenecarboximidamide, N,N''-(2,5-furandiyldi-4,1-phenylene)bis-, dihydrochloride (9CI) (CA INDEX NAME)

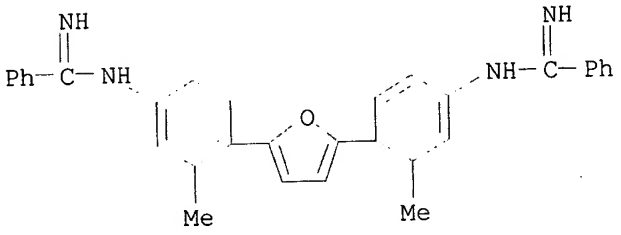


●2 HCl

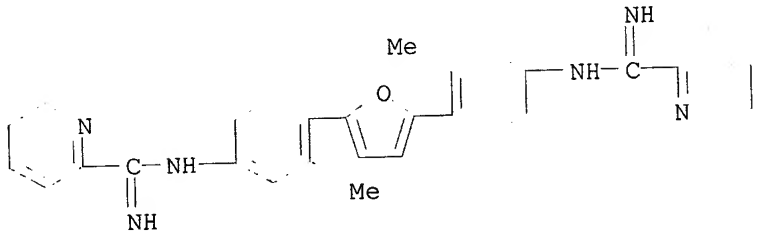
RN 347191-04-2 HCAPLUS
CN Cyclohexanecarboximidamide, N,N''-(2,5-furandiyldi-4,1-phenylene)bis- (9CI) (CA INDEX NAME)



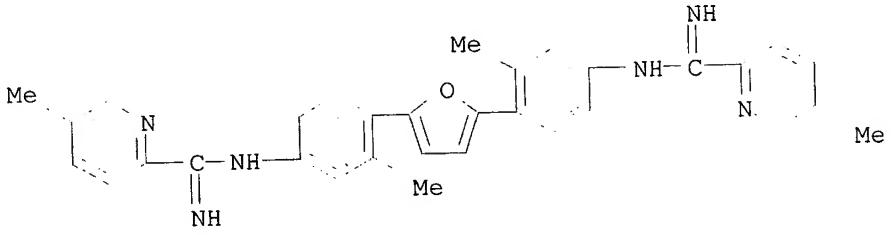
RN 347191-07-5 HCAPLUS
CN Benzenecarboximidamide, N,N''-[2,5-furandiylbis(3-methyl-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



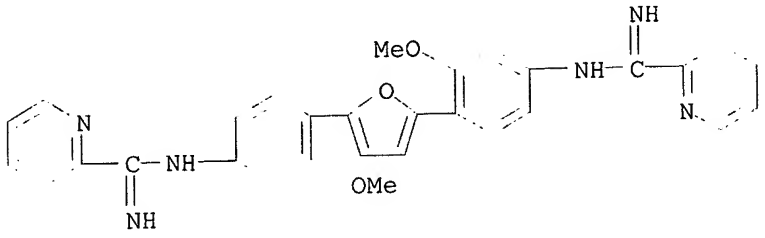
RN 347191-09-7 HCAPLUS
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3-methyl-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



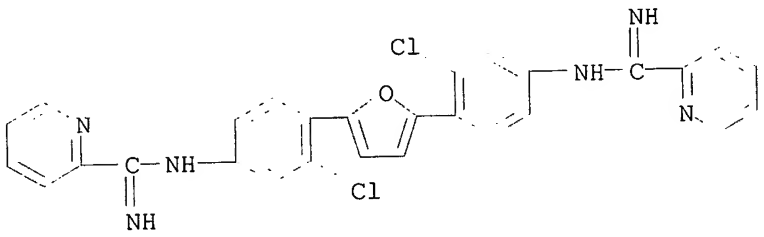
RN 347191-14-4 HCAPLUS
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3-methyl-4,1-phenylene)]bis[5-methyl- (9CI) (CA INDEX NAME)



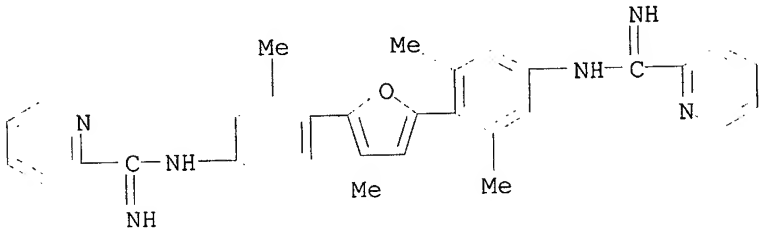
RN 347191-16-6 HCAPLUS
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3-methoxy-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



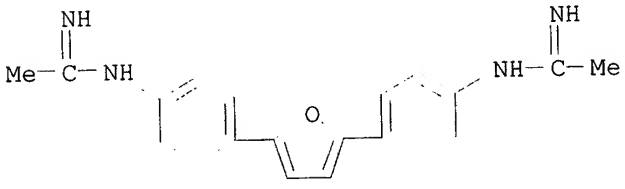
RN 347191-18-8 HCAPLUS
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3-chloro-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



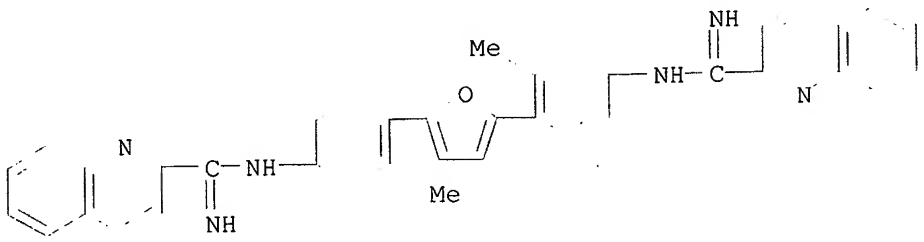
RN 347191-20-2 HCAPLUS
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3,5-dimethyl-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



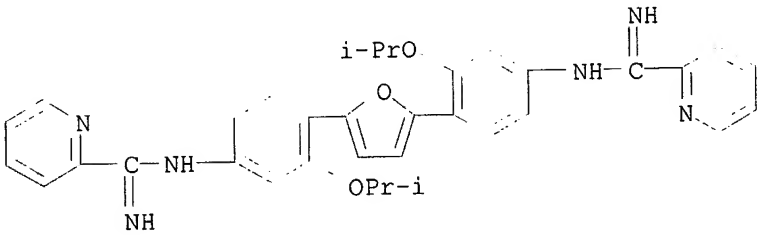
RN 423165-06-4 HCAPLUS
CN Ethanimidamide, N,N''-(2,5-furandiyldi-4,1-phenylene)bis- (9CI) (CA INDEX NAME)



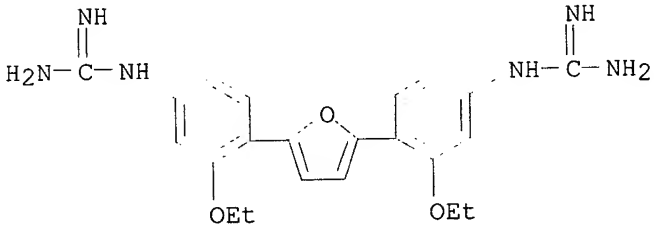
RN 423165-09-7 HCAPLUS
CN 2-Quinolinecarboximidamide, N,N''-[2,5-furandiylbis(3-methyl-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



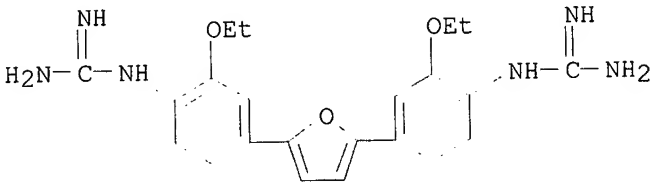
RN 423165-22-4 HCAPLUS
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis[3-(1-methylethoxy)-4,1-phenylene]]bis- (9CI) (CA INDEX NAME)



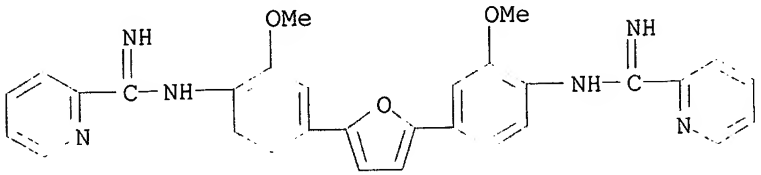
RN 423165-25-7 HCAPLUS
CN Guanidine, N,N'''-[2,5-furandiylbis(3-ethoxy-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



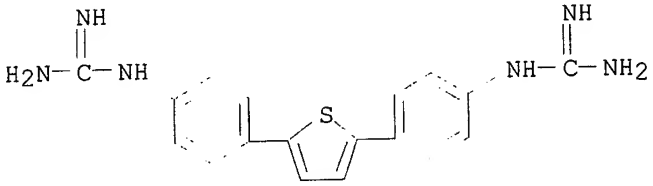
RN 423165-28-0 HCAPLUS
CN Guanidine, N,N'''-[2,5-furandiylbis(2-ethoxy-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



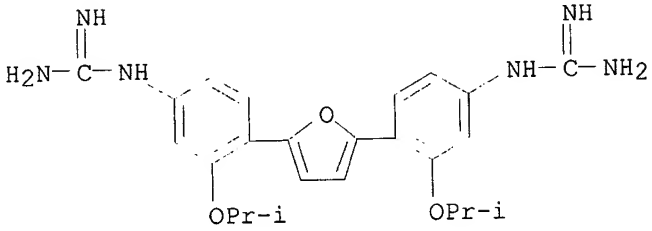
RN 423165-29-1 HCAPLUS
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(2-methoxy-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



RN 423165-31-5 HCAPLUS
CN Guanidine, N,N'''-(2,5-thiophenediyldi-4,1-phenylene)bis- (9CI) (CA INDEX NAME)

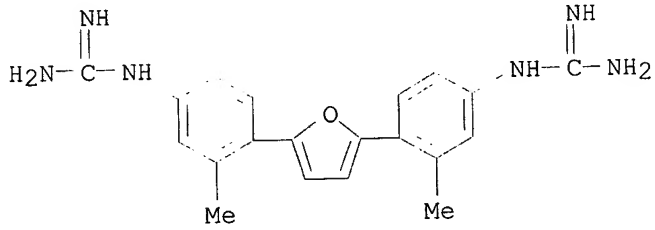


RN 423165-62-2 HCAPLUS
CN Guanidine, N,N'''-[2,5-furandiylbis[3-(1-methylethoxy)-4,1-phenylene]]bis- (9CI) (CA INDEX NAME)



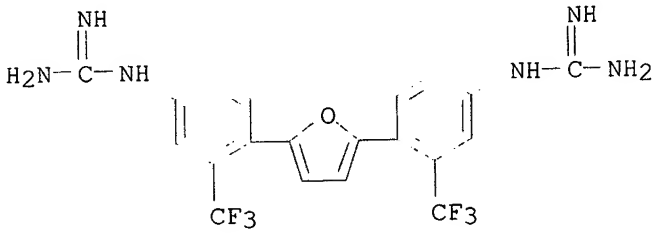
IT **423165-10-0 423165-11-1 423165-12-2**
423165-16-6 423165-17-7 423165-18-8
423165-19-9 423165-20-2 423165-21-3
423165-23-5 423165-24-6 423165-26-8
423165-27-9 423165-30-4
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(reversed amidines for treating, preventing, or inhibiting leishmaniasis)

RN 423165-10-0 HCAPLUS
CN Guanidine, N,N'''-[2,5-furandiylbis(3-methyl-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)

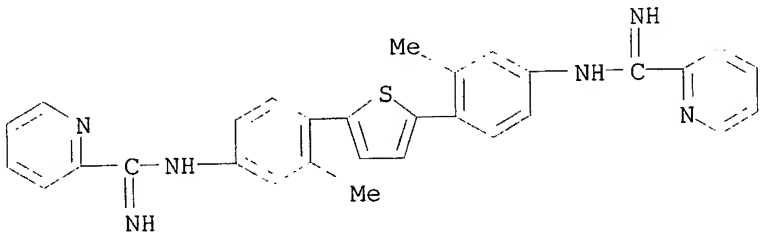


RN 423165-11-1 HCAPLUS

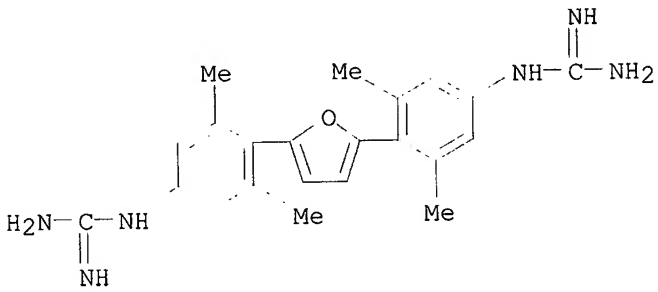
CN Guanidine, N,N'''-[2,5-furandiylbis[3-(trifluoromethyl)-4,1-phenylene]]bis- (9CI) (CA INDEX NAME)



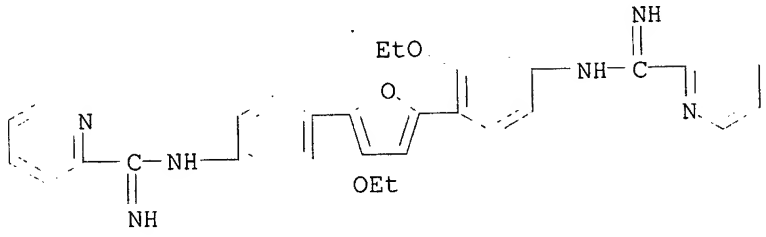
RN 423165-12-2 HCAPLUS
CN 2-Pyridinecarboximidamide, N,N''-[2,5-thiophenediylbis(3-methyl-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



RN 423165-16-6 HCAPLUS
CN Guanidine, N,N'''-[2,5-furandiylbis(3,5-dimethyl-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)

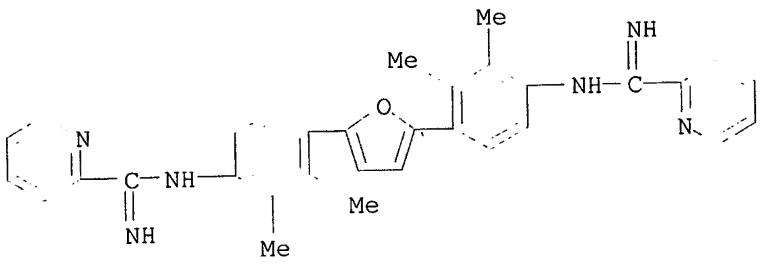


RN 423165-17-7 HCAPLUS
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3-ethoxy-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)

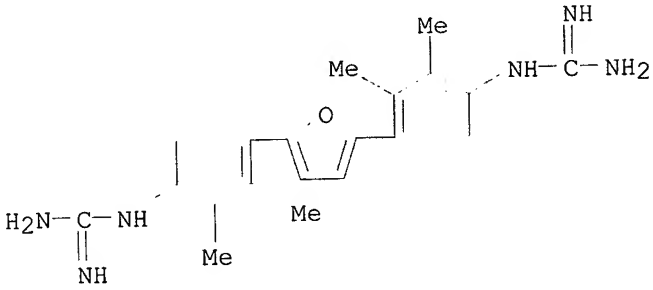


RN 423165-18-8 HCAPLUS
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(2,3-dimethyl-4,1-

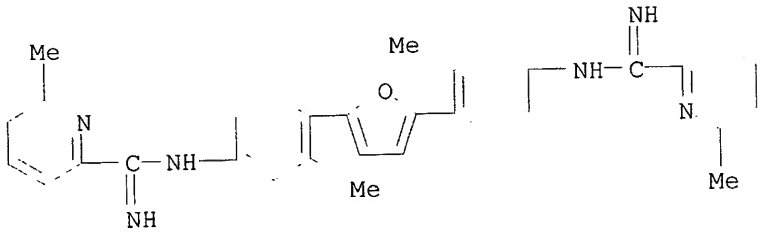
phenylene)]bis- (9CI) (CA INDEX NAME)



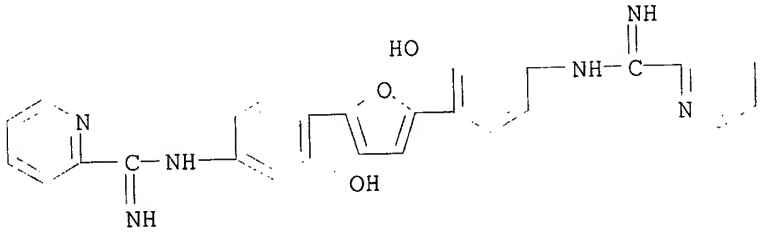
RN 423165-19-9 HCAPLUS
CN Guanidine, N,N'''-[2,5-furandiylbis(2,3-dimethyl-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



RN 423165-20-2 HCAPLUS
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3-methyl-4,1-phenylene)]bis[6-methyl- (9CI) (CA INDEX NAME)

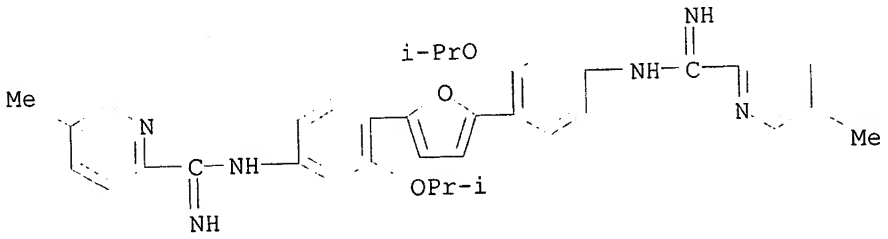


RN 423165-21-3 HCAPLUS
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3-hydroxy-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)

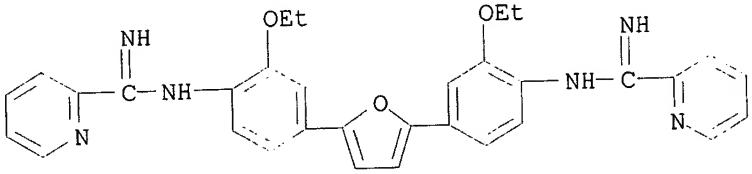


RN 423165-23-5 HCAPLUS
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis[3-(1-methylethoxy)-4,1-

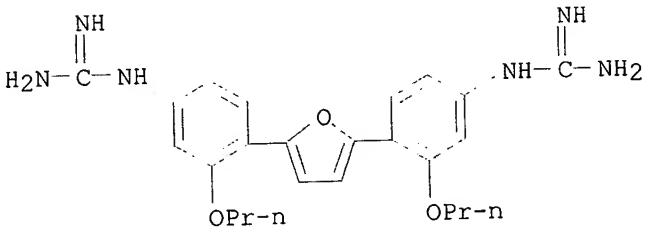
phenylene]]bis[5-methyl- (9CI) (CA INDEX NAME)



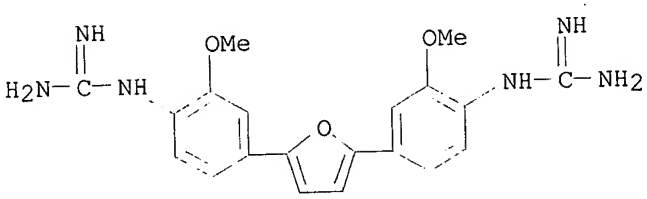
RN 423165-24-6 HCAPLUS
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(2-ethoxy-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



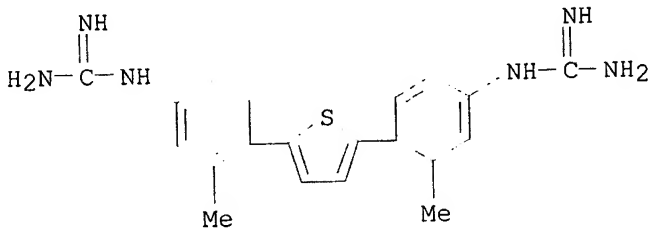
RN 423165-26-8 HCAPLUS
CN Guanidine, N,N'''-[2,5-furandiylbis(3-propoxy-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



RN 423165-27-9 HCAPLUS
CN Guanidine, N,N'''-[2,5-furandiylbis(2-methoxy-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)

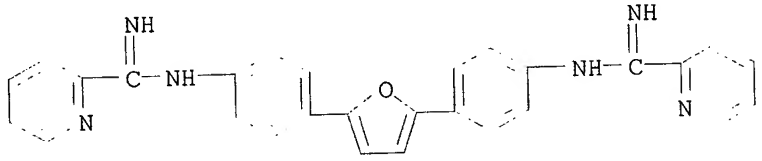


RN 423165-30-4 HCAPLUS
CN Guanidine, N,N'''-[2,5-thiophenediylbis(3-methyl-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



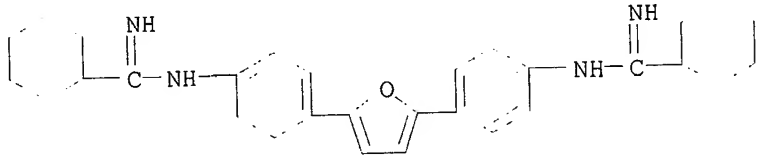
IT **347191-00-8P 347191-05-3P 347191-08-6P**
347191-11-1P 347191-15-5P 347191-17-7P
347191-19-9P 347191-21-3P 423165-54-2P
423165-55-3P 423165-56-4P 423165-57-5P
423165-58-6P 423165-59-7P 423165-61-1P
423165-64-4P 423165-66-6P 423165-69-9P
423165-71-3P 423165-74-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(reversed amidines for treating, preventing, or inhibiting leishmaniasis)

RN 347191-00-8 HCAPLUS
CN 2-Pyridinecarboximidamide, N,N''-(2,5-furandiyldi-4,1-phenylene)bis-, hydrochloride (2:7) (9CI) (CA INDEX NAME)



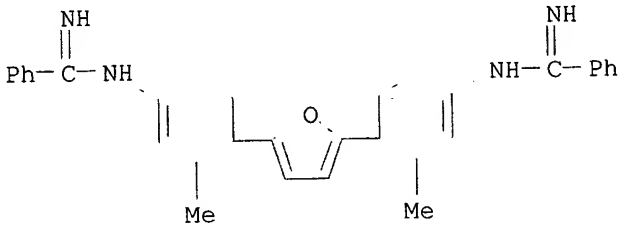
●7/2 HCl

RN 347191-05-3 HCAPLUS
CN Cyclohexanecarboximidamide, N,N''-(2,5-furandiyldi-4,1-phenylene)bis-, dihydrochloride (9CI) (CA INDEX NAME)



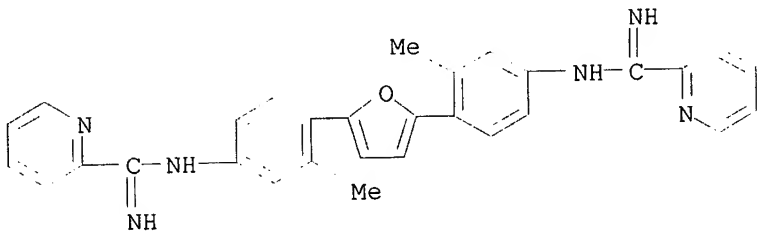
●2 HCl

RN 347191-08-6 HCAPLUS
CN Benzenecarboximidamide, N,N''-[2,5-furandiylbis(3-methyl-4,1-phenylene)]bis-, dihydrochloride (9CI) (CA INDEX NAME)



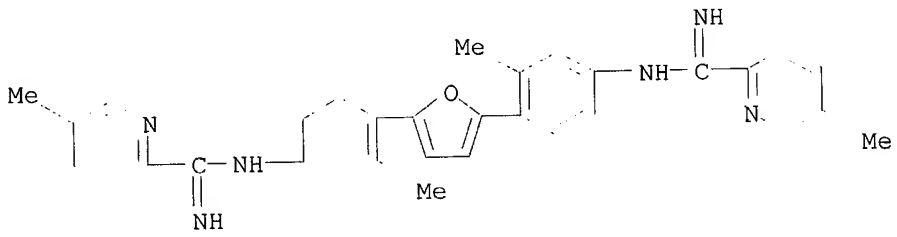
●2 HCl

RN 347191-11-1 HCAPLUS
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3-methyl-4,1-phenylene)]bis-, hydrochloride (2:7) (9CI) (CA INDEX NAME)



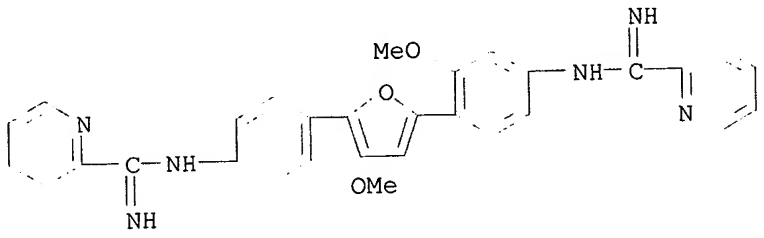
●7/2 HCl

RN 347191-15-5 HCAPLUS
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3-methyl-4,1-phenylene)]bis[5-methyl-, hydrochloride (4:13) (9CI) (CA INDEX NAME)



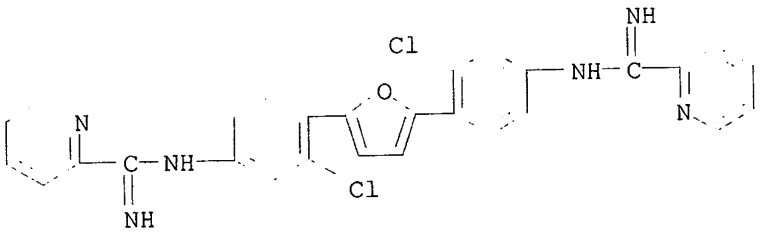
●13/4 HCl

RN 347191-17-7 HCAPLUS
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3-methoxy-4,1-phenylene)]bis-, dihydrochloride (9CI) (CA INDEX NAME)



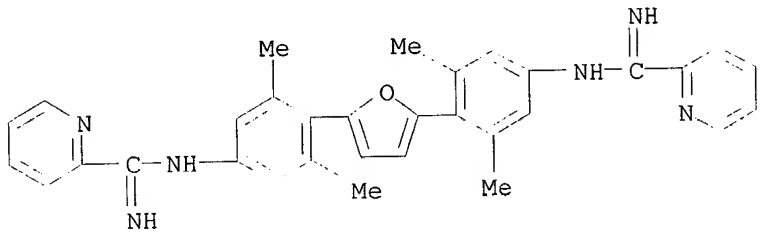
●2 HCl

RN 347191-19-9 HCAPLUS
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3-chloro-4,1-phenylene)]bis-, dihydrochloride (9CI) (CA INDEX NAME)



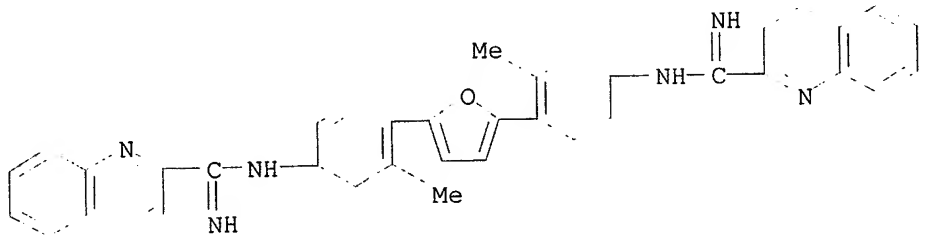
●2 HCl

RN 347191-21-3 HCAPLUS
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3,5-dimethyl-4,1-phenylene)]bis-, hydrochloride (4:15) (9CI) (CA INDEX NAME)



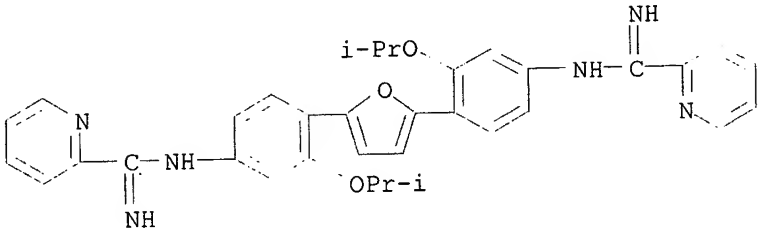
●15/4 HCl

RN 423165-54-2 HCAPLUS
CN 2-Quinolinecarboximidamide, N,N''-[2,5-furandiylbis(3-methyl-4,1-phenylene)]bis-, dihydrochloride (9CI) (CA INDEX NAME)



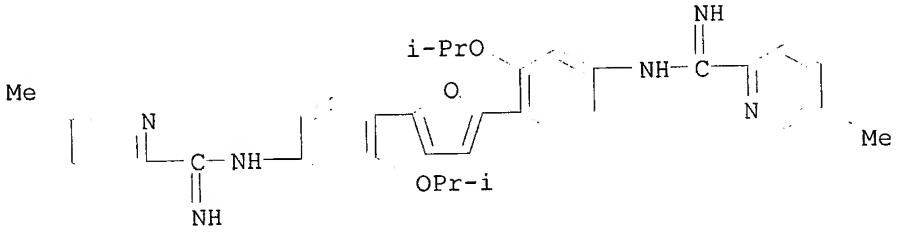
●2 HCl

RN 423165-55-3 HCAPLUS
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis[3-(1-methylethoxy)-4,1-phenylene]]bis-, dihydrochloride (9CI) (CA INDEX NAME)



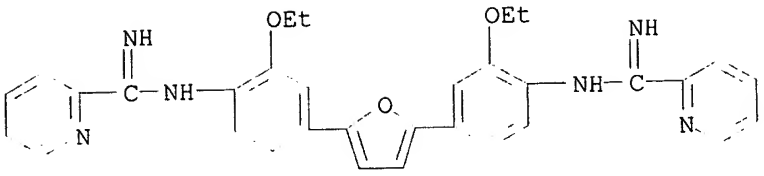
●2 HCl

RN 423165-56-4 HCAPLUS
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis[3-(1-methylethoxy)-4,1-phenylene]]bis[5-methyl-, dihydrochloride (9CI) (CA INDEX NAME)



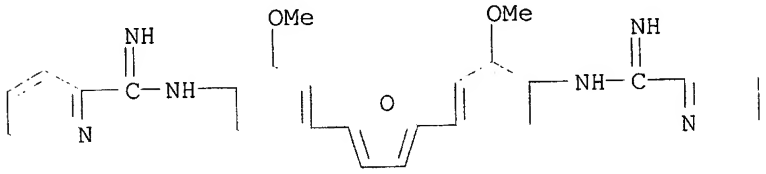
●2 HCl

RN 423165-57-5 HCAPLUS
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(2-ethoxy-4,1-phenylene)]bis-, dihydrochloride (9CI) (CA INDEX NAME)



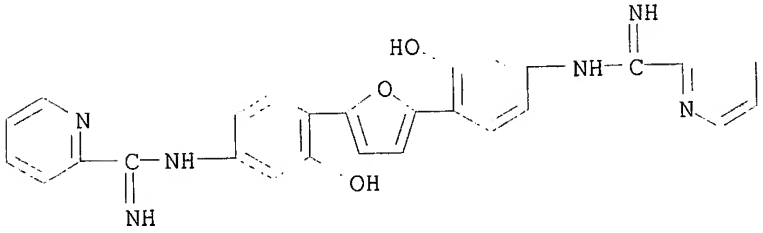
●2 HCl

RN 423165-58-6 HCAPLUS
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(2-methoxy-4,1-phenylene)]bis-, dihydrochloride (9CI) (CA INDEX NAME)



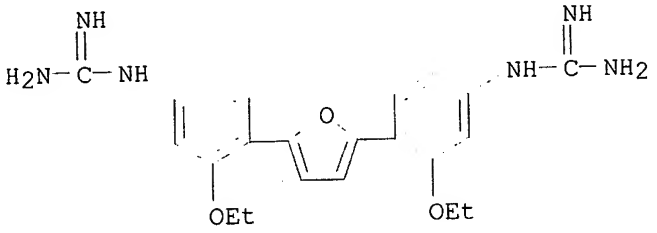
●2 HCl

RN 423165-59-7 HCAPLUS
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3-hydroxy-4,1-phenylene)]bis-, dihydrochloride (9CI) (CA INDEX NAME)



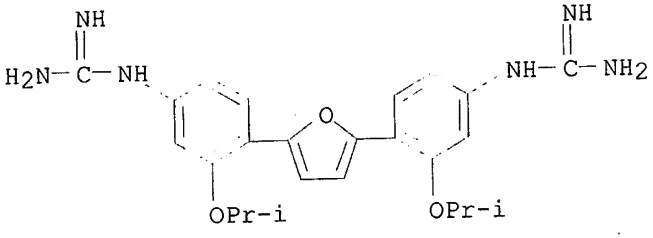
●2 HCl

RN 423165-61-1 HCAPLUS
CN Guanidine, N,N'''-[2,5-furandiylbis(3-ethoxy-4,1-phenylene)]bis-, dihydrochloride (9CI) (CA INDEX NAME)



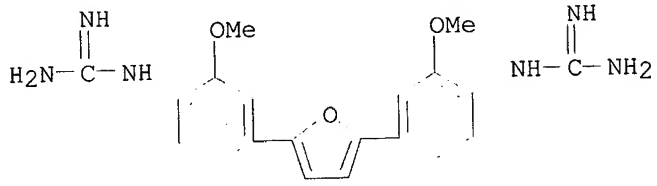
●2 HCl

RN 423165-64-4 HCAPLUS
CN Guanidine, N,N'''-[2,5-furandiylbis[3-(1-methylethoxy)-4,1-phenylene]]bis-, dihydrochloride (9CI) (CA INDEX NAME)



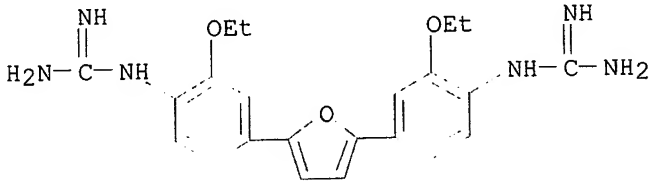
●2 HCl

RN 423165-66-6 HCAPLUS
CN Guanidine, N,N'''-[2,5-furandiylbis(2-methoxy-4,1-phenylene)]bis-, dihydrochloride (9CI) (CA INDEX NAME)



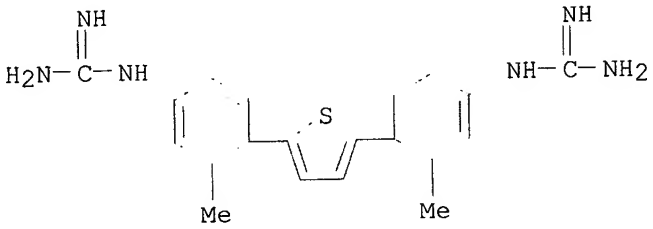
●2 HCl

RN 423165-69-9 HCAPLUS
CN Guanidine, N,N'''-[2,5-furandiylbis(2-ethoxy-4,1-phenylene)]bis-, dihydrochloride (9CI) (CA INDEX NAME)



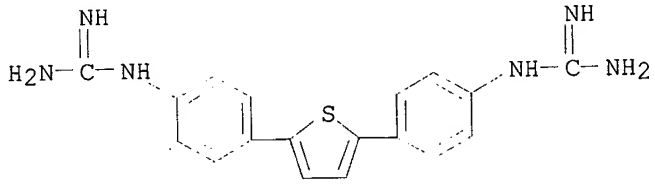
●2 HCl

RN 423165-71-3 HCAPLUS
CN Guanidine, N,N'''-[2,5-thiophenediylbis(3-methyl-4,1-phenylene)]bis-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

RN 423165-74-6 HCAPLUS
CN Guanidine, N,N'''-(2,5-thiophenediyldi-4,1-phenylene)bis-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

L12 ANSWER 4 OF 5 HCAPLUS COPYRIGHT 2003 ACS
AN 2001:301099 HCAPLUS
DN 135:76736
TI Diguanidino and "Reversed" Diamidino 2,5-Diarylfurans as Antimicrobial Agents
AU **Stephens, Chad E.**; Tanious, Farial; Kim, Susan; **Wilson, W. David**; Schell, Wiley A.; **Perfect, John R.**; Franzblau, Scott G.; **Boykin, David W.**
CS Department of Chemistry, Georgia State University, Atlanta, GA, 30303-3083, USA
SO Journal of Medicinal Chemistry (2001), 44(11), 1741-1748

CODEN: JMCMAR; ISSN: 0022-2623
PB American Chemical Society
DT Journal
LA English
CC 27-6 (Heterocyclic Compounds (One Hetero Atom))
Section cross-reference(s): 1
OS CASREACT 135:76736
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Dicationic 2,5-bis(4-guanidinophenyl)furans, e.g. I, 2,5-bis[4-(arylimino)aminophenyl]furans, e.g. II, and 2,5-bis[4-(alkylimino)aminophenyl]furans, e.g. III have been synthesized starting from 2,5-bis[tri-n-butylstannyl]furan. Thermal melting studies with poly dA.bul.dT and the duplex oligomer d(CGCGAATTCGCG)2 demonstrated high DNA binding affinities for a no. of the compds. The binding affinities are highly dependent on structure and are significantly affected by substituents both on the Ph rings of the 2,5-diphenylfuran nucleus and on the cationic centers. Of the 17 novel dicationic compds. synthesized, six exhibited MICs of 2 .mu.g/mL or less vs. Mycobacterium tuberculosis. Of the compds. screened against Candida albicans, three gave MICs of 2 .mu.g/mL or less (I, II and IV) and two (I, II) were fungicidal, unlike a std. antifungal drug fluconazole, which was fungistatic. In addn., one of the tested compds. II exhibited a MIC of <1 .mu.g/mL against Aspergillus fumigatus, while also being a fungicidal against this organism. Finally, when evaluated against an expanded fungal panel, compd. IV showed good activity against Cryptococcus neoformans and Rhizopus arrhizus.

ST fungicidal antituberculostatic amidinophenylfuran; substituent effect DNA binding affinity arylfuran cationic; arylfuran amidino guanidino antimicrobial agent prepn; furan guanidinophenyl prepn; amidinophenyl furan imino prepn

IT Imidic acids
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(esters, thio; prepn. of (naphthylmethyl)thioimidates from (bromomethyl)naphthalene and thioamides in synthesis of bis(amidinoaryl)furans as antifungicidal and antituberculosis agents)

IT Structure-activity relationship
(fungicidal; prepn. of (naphthylmethyl)thioimidates from (bromomethyl)naphthalene and thioamides in synthesis of bis(amidinoaryl)furans as antifungicidal and antituberculosis agents)

IT Thioamides
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of (naphthylmethyl)thioimidates from (bromomethyl)naphthalene and thioamides in synthesis of bis(amidinoaryl)furans as antifungicidal and antituberculosis agents)

IT Fungicides
Tuberculostatics
(prepn. of bis(guanidinoaryl)- and bis(amidinoaryl)furans as antifungal and antituberculosis agents)

IT 347191-26-8P
RL: BYP (Byproduct); PREP (Preparation)
(formation of monoamidine byproduct in prepn. of bis(guanidinoaryl)- and bis(amidinoaryl)furans as antifungal and antituberculosis agents)

IT 180002-24-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(formation of monoamidine byproduct in prepn. of bis(guanidinoaryl)- and bis(amidinoaryl)furans as antifungal and antituberculosis agents)

IT 939-26-4, 2-(Bromomethyl)naphthalene 2227-79-4, Thiobenzamide

7390-42-3, Cyclohexanecarbothioamide 96898-30-5, Quinoline-2-carbothioamide
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of (naphthylmethyl)thioimidates from (bromomethyl)naphthalene and thioamides in synthesis of bis(amidinoaryl)furans as antifungicidal and antituberculosis agents)

IT 347191-22-4P 347191-23-5P 347191-24-6P 347191-25-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of (naphthylmethyl)thioimidates from (bromomethyl)naphthalene and thioamides in synthesis of bis(amidinoaryl)furans as antifungicidal and antituberculosis agents)

IT **347190-93-6P 347190-94-7P 347190-95-8P**
347190-96-9P 347190-97-0P 347190-98-1P
347191-00-8P 347191-03-1P 347191-05-3P
347191-06-4P 347191-08-6P 347191-11-1P
347191-13-3P 347191-15-5P 347191-17-7P
347191-19-9P 347191-21-3P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(prepn. of bis(guanidinoaryl)- and bis(amidinoaryl)furans as antifungal and antituberculosis agents)

IT 367-67-9 586-78-7, 4-Bromo-1-nitrobenzene 7149-70-4, 1-Bromo-2-methyl-4-nitrobenzene 29682-39-1, 1-Bromo-2-chloro-4-nitrobenzene 53906-84-6, 4-Bromo-3,5-dimethylnitrobenzene 77337-82-7, 1-Bromo-2-methoxy-4-nitrobenzene 107819-90-9 193361-76-1, 2,5-Bis(tributylstannyl)furan
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of bis(guanidinoaryl)- and bis(amidinoaryl)furans as antifungal and antituberculosis agents)

IT 53715-17-6P 56297-30-4P 251577-90-9P 347190-78-7P 347190-79-8P
347190-80-1P 347190-81-2P 347190-82-3P 347190-83-4P 347190-84-5P
347190-85-6P 347190-86-7P **347190-87-8P 347190-88-9P**
347190-89-0P 347190-90-3P 347190-91-4P
347190-92-5P 347190-99-2P 347191-01-9P
347191-02-0P 347191-04-2P 347191-07-5P
347191-09-7P 347191-10-0P **347191-12-2P**
347191-14-4P 347191-16-6P 347191-18-8P
347191-20-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of bis(guanidinoaryl)- and bis(amidinoaryl)furans as antifungal and antituberculosis agents)

IT 100-70-9, 2-Cyanopyridine 1620-77-5, 2-Cyano-5-methylpyridine
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of pyridinethiocarboxamide from (cyano)pyridine and thioacetamide in synthesis of bis(amidinoaryl)furans as antifungicidal and antituberculosis agents)

IT 5346-38-3P, 2-Pyridinecarbothioamide 334017-98-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of pyridinethiocarboxamide from (cyano)pyridine and thioacetamide in synthesis of bis(amidinoaryl)furans as antifungicidal and antituberculosis agents)

RE.CNT 49 THERE ARE 49 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
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IT **347190-93-6P 347190-94-7P 347190-95-8P**
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347191-00-8P 347191-03-1P 347191-05-3P
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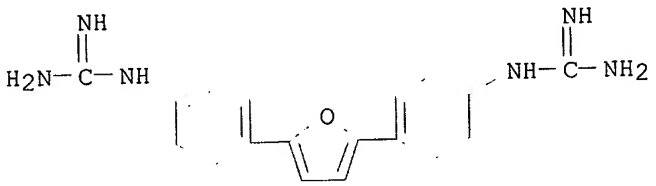
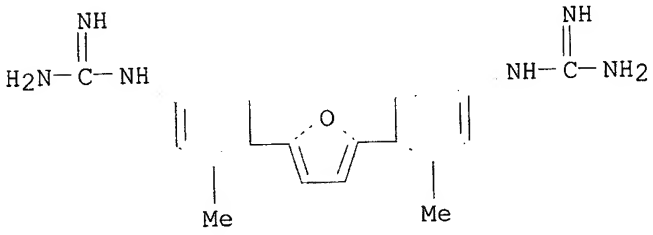
347191-13-3P 347191-15-5P 347191-17-7P
347191-19-9P 347191-21-3P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(prepn. of bis(guanidinoaryl)- and bis(amidinoaryl)furans as antifungal and antituberculosis agents)

RN 347190-93-6 HCAPLUS
CN Guanidine, N,N'''-(2,5-furandiyldi-4,1-phenylene)bis-, dihydrochloride (9CI) (CA INDEX NAME)



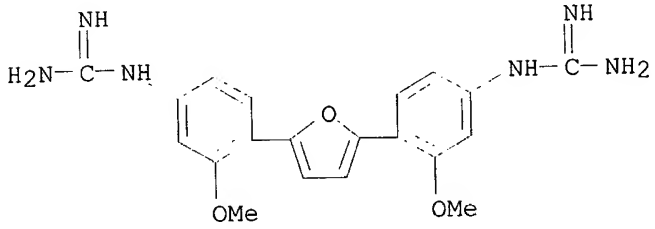
●2 HCl

RN 347190-94-7 HCAPLUS
CN Guanidine, N,N'''-[2,5-furandiylbis(3-methyl-4,1-phenylene)]bis-, dihydrochloride (9CI) (CA INDEX NAME)



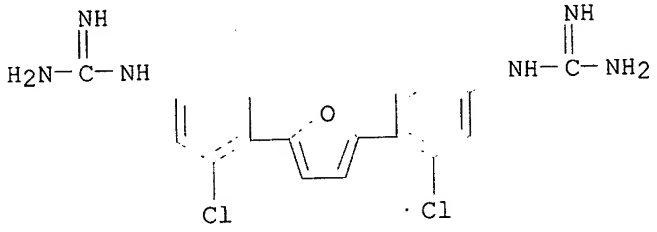
●2 HCl

RN 347190-95-8 HCAPLUS
CN Guanidine, N,N'''-[2,5-furandiylbis(3-methoxy-4,1-phenylene)]bis-, dihydrochloride (9CI) (CA INDEX NAME)



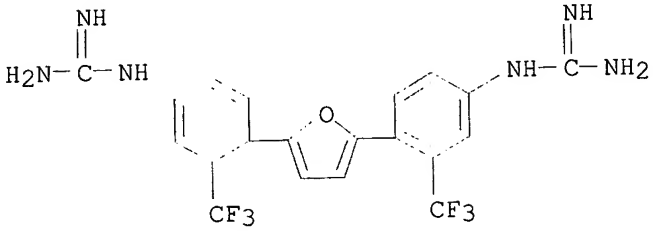
●2 HCl

RN 347190-96-9 HCAPLUS
CN Guanidine, N,N'''-[2,5-furandiylbis(3-chloro-4,1-phenylene)]bis-, dihydrochloride (9CI) (CA INDEX NAME)



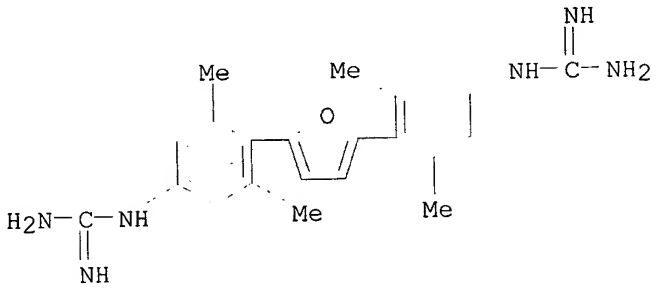
●2 HCl

RN 347190-97-0 HCAPLUS
CN Guanidine, N,N'''-[2,5-furandiylbis[3-(trifluoromethyl)-4,1-phenylene]]bis-, dihydrochloride (9CI) (CA INDEX NAME)



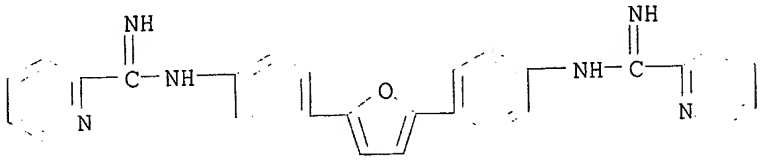
●2 HCl

RN 347190-98-1 HCAPLUS
CN Guanidine, N,N'''-[2,5-furandiylbis(3,5-dimethyl-4,1-phenylene)]bis-, dihydrochloride (9CI) (CA INDEX NAME)



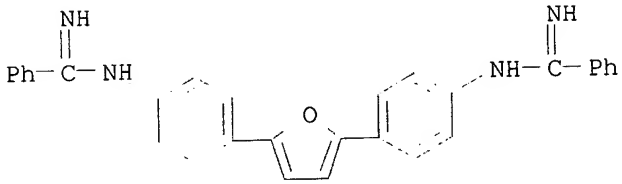
●2 HCl

RN 347191-00-8 HCAPLUS
CN 2-Pyridinecarboximidamide, N,N''-(2,5-furandiyldi-4,1-phenylene)bis-, hydrochloride (2:7) (9CI) (CA INDEX NAME)



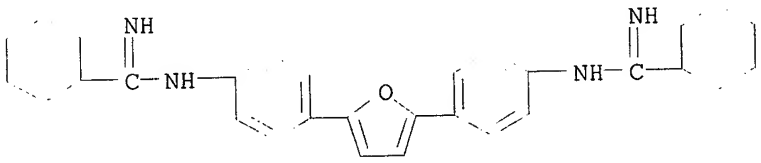
●7/2 HCl

RN 347191-03-1 HCAPLUS
CN Benzenecarboximidamide, N,N''-(2,5-furandiyldi-4,1-phenylene)bis-, dihydrochloride (9CI) (CA INDEX NAME)



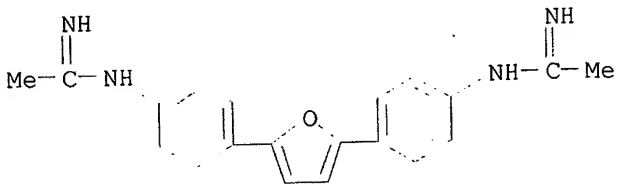
●2 HCl

RN 347191-05-3 HCAPLUS
CN Cyclohexanecarboximidamide, N,N''-(2,5-furandiyldi-4,1-phenylene)bis-, dihydrochloride (9CI) (CA INDEX NAME)



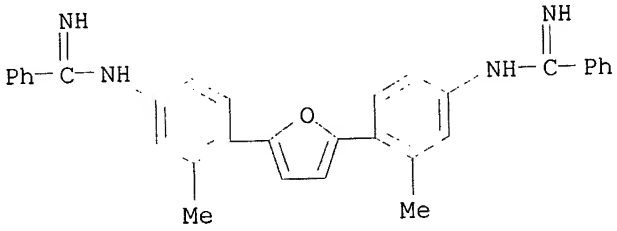
●2 HCl

RN 347191-06-4 HCAPLUS
CN Ethanimidamide, N,N''-(2,5-furandiyldi-4,1-phenylene)bis-, dihydrobromide (9CI) (CA INDEX NAME)



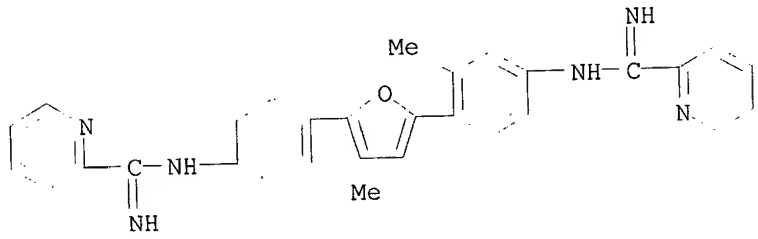
●2 HBr

RN 347191-08-6 HCAPLUS
CN Benzenecarboximidamide, N,N''-[2,5-furandiylbis(3-methyl-4,1-phenylene)]bis-, dihydrochloride (9CI) (CA INDEX NAME)



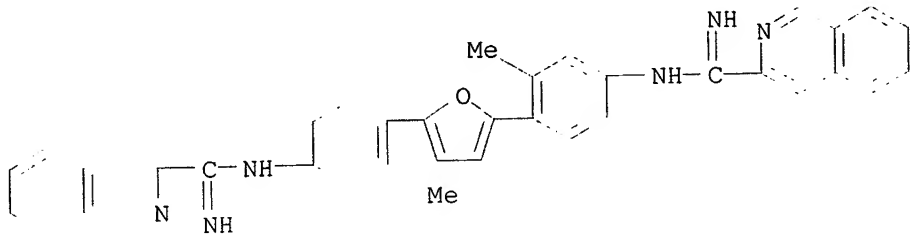
●2 HCl

RN 347191-11-1 HCAPLUS
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3-methyl-4,1-phenylene)]bis-, hydrochloride (2:7) (9CI) (CA INDEX NAME)



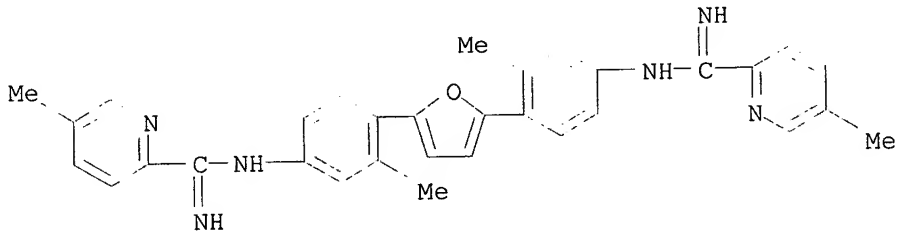
●7/2 HCl

RN 347191-13-3 HCAPLUS
CN 3-Isoquinolinecarboximidamide, N,N''-[2,5-furandiylbis(3-methyl-4,1-phenylene)]bis-, dihydrochloride (9CI) (CA INDEX NAME)



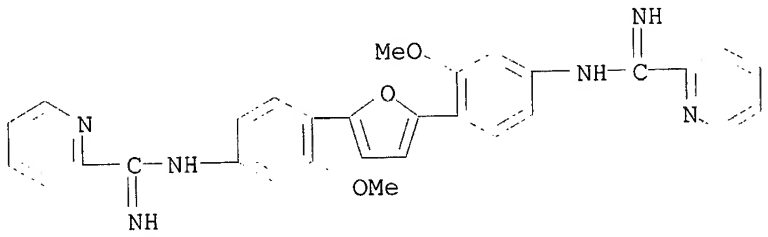
●2 HCl

RN 347191-15-5 HCAPLUS
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3-methyl-4,1-phenylene)]bis[5-methyl-, hydrochloride (4:13) (9CI) (CA INDEX NAME)



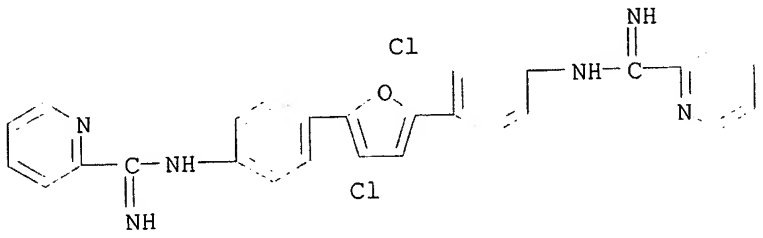
●13/4 HCl

RN 347191-17-7 HCAPLUS
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3-methoxy-4,1-phenylene)]bis-, dihydrochloride (9CI) (CA INDEX NAME)



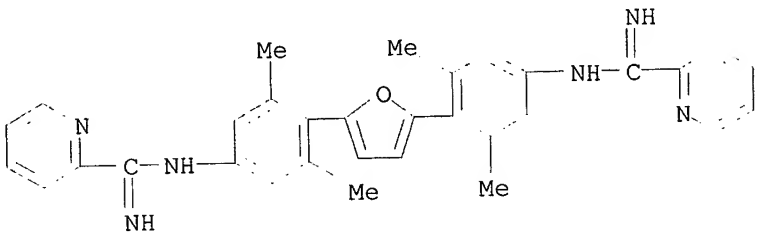
●2 HCl

RN 347191-19-9 HCAPLUS
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3-chloro-4,1-phenylene)]bis-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

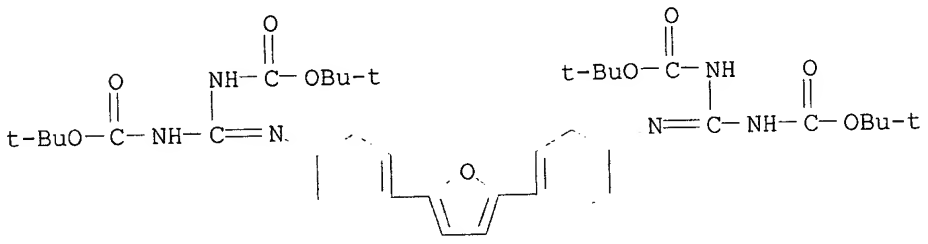
RN 347191-21-3 HCAPLUS
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3,5-dimethyl-4,1-phenylene)]bis-, hydrochloride (4:15) (9CI) (CA INDEX NAME)



●15/4 HCl

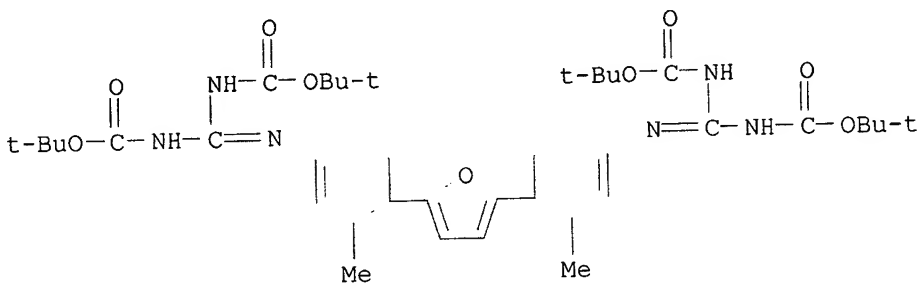
IT **347190-87-8P 347190-88-9P 347190-89-0P**
347190-90-3P 347190-91-4P 347190-92-5P
347190-99-2P 347191-02-0P 347191-04-2P
347191-07-5P 347191-09-7P 347191-12-2P
347191-14-4P 347191-16-6P 347191-18-8P
347191-20-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of bis(guanidinoaryl)- and bis(amidinoaryl)furans as antifungal and antituberculosis agents)

RN 347190-87-8 HCAPLUS
CN Carbamic acid, [2,5-furandiylbis(4,1-phenylenenitrilomethanetetrayl)]tetrakis-, tetrakis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)

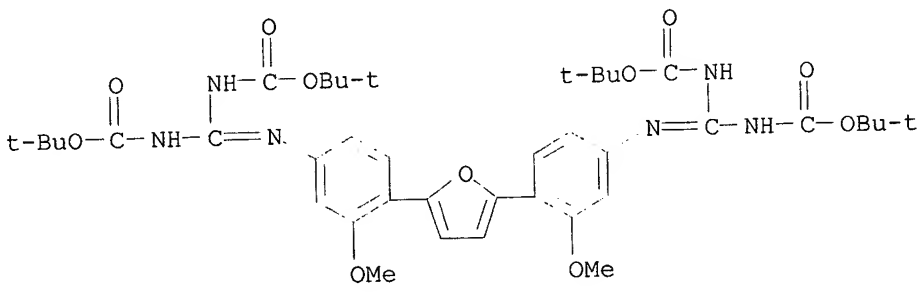


RN 347190-88-9 HCAPLUS
CN Carbamic acid, [2,5-furandiylbis[(3-methyl-4,1-phenylene)nitrilomethanetetrayl]]tetrakis-, tetrakis(1,1-dimethylethyl)

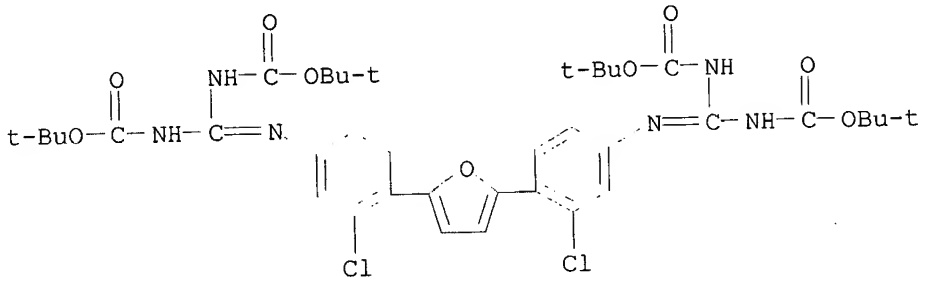
ester (9CI) (CA INDEX NAME)



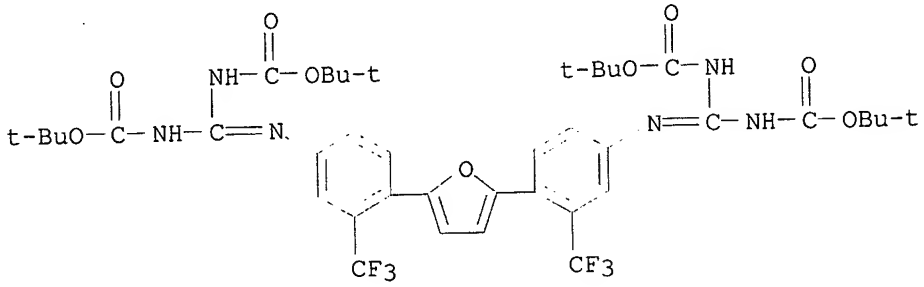
RN 347190-89-0 HCAPLUS
CN Carbamic acid, [2,5-furandiylbis[(3-methoxy-4,1-phenylene)nitrilomethanetetrayl]]tetrakis-, tetrakis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



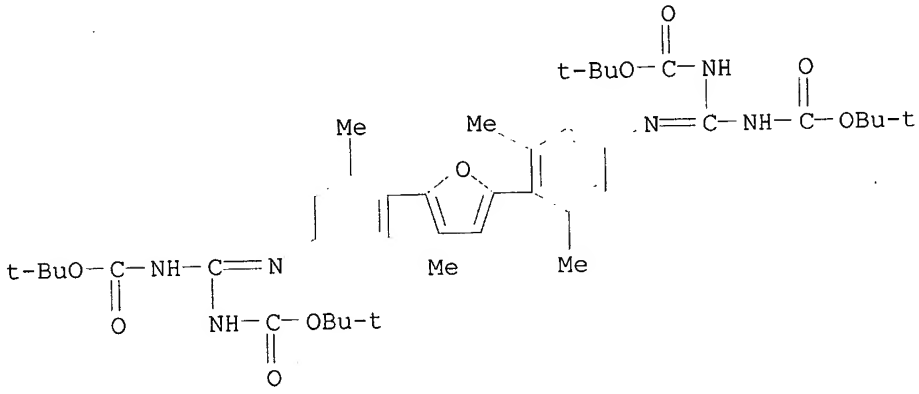
RN 347190-90-3 HCAPLUS
CN Carbamic acid, [2,5-furandiylbis[(3-chloro-4,1-phenylene)nitrilomethanetetrayl]]tetrakis-, tetrakis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



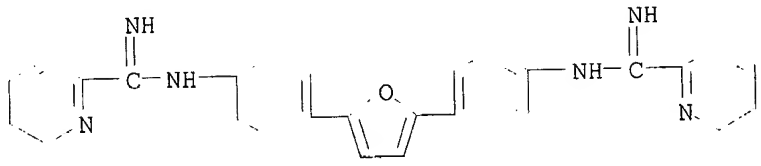
RN 347190-91-4 HCAPLUS
CN Carbamic acid, [2,5-furandiylbis[[3-(trifluoromethyl)-4,1-phenylene]nitrilomethanetetrayl]]tetrakis-, tetrakis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



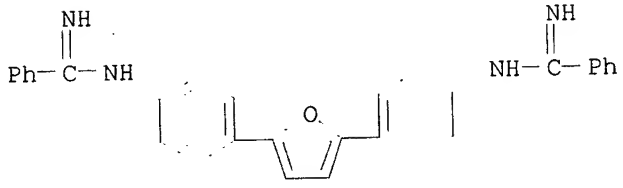
RN 347190-92-5 HCAPLUS
CN Carbamic acid, [2,5-furandiylbis[(3,5-dimethyl-4,1-phenylene)nitrilomethanetetrayl]]tetrakis-, tetrakis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



RN 347190-99-2 HCAPLUS
CN 2-Pyridinecarboximidamide, N,N''-(2,5-furandiyldi-4,1-phenylene)bis- (9CI) (CA INDEX NAME)

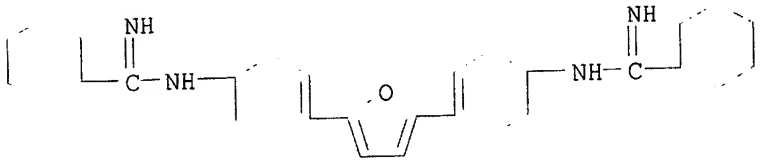


RN 347191-02-0 HCAPLUS
CN Benzenecarboximidamide, N,N''-(2,5-furandiyldi-4,1-phenylene)bis- (9CI) (CA INDEX NAME)

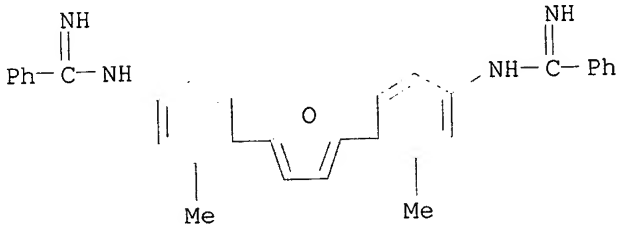


RN 347191-04-2 HCAPLUS

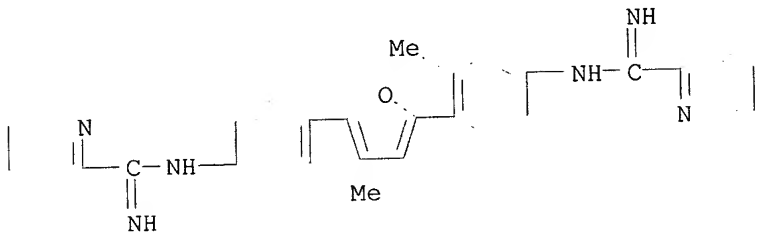
CN Cyclohexanecarboximidamide, N,N''-(2,5-furandiyldi-4,1-phenylene)bis- (9CI) (CA INDEX NAME)



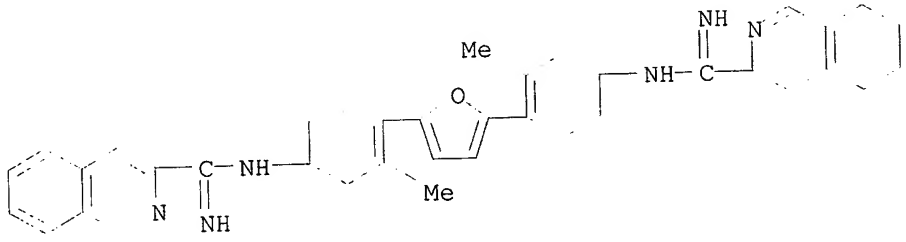
RN 347191-07-5 HCAPLUS
CN Benzenecarboximidamide, N,N''-[2,5-furandiylbis(3-methyl-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



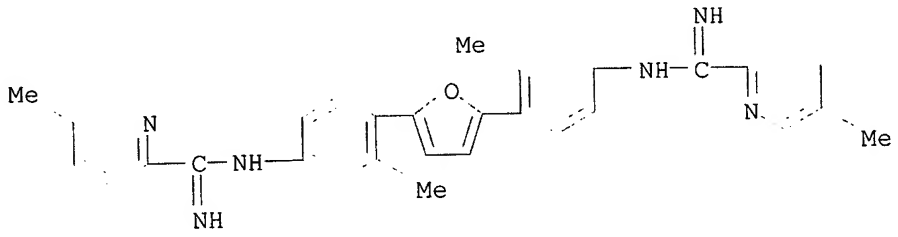
RN 347191-09-7 HCAPLUS
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3-methyl-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



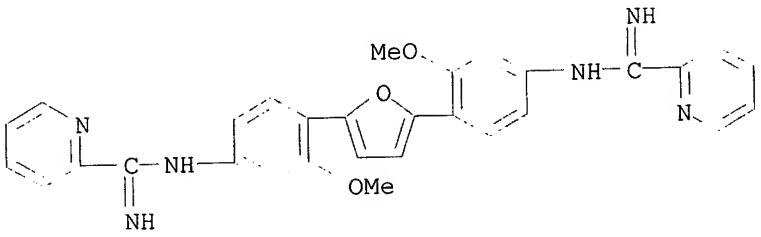
RN 347191-12-2 HCAPLUS
CN 3-Isoquinolinecarboximidamide, N,N''-[2,5-furandiylbis(3-methyl-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



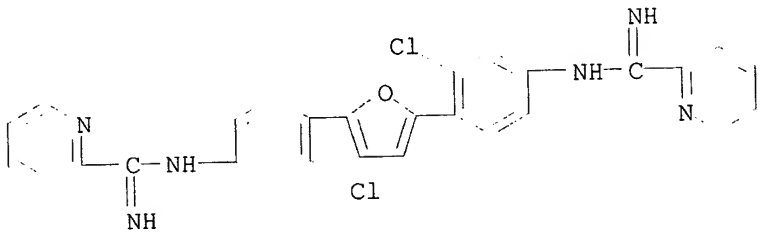
RN 347191-14-4 HCAPLUS
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3-methyl-4,1-phenylene)]bis[5-methyl- (9CI) (CA INDEX NAME)



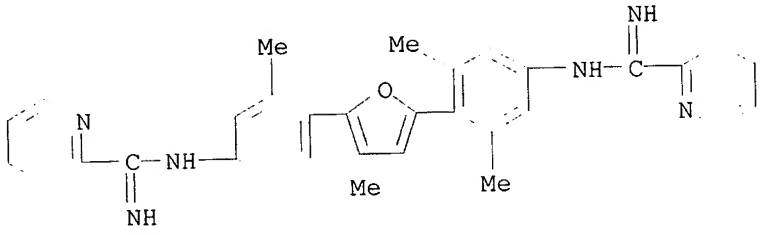
RN 347191-16-6 HCAPLUS
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3-methoxy-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



RN 347191-18-8 HCAPLUS
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3-chloro-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)

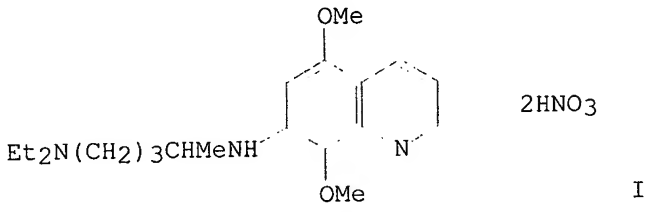


RN 347191-20-2 HCAPLUS
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3,5-dimethyl-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



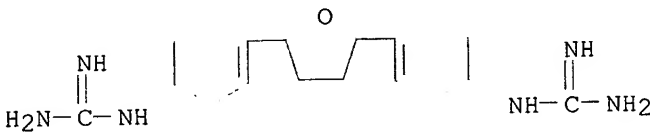
L12 ANSWER 5 OF 5 HCAPLUS COPYRIGHT 2003 ACS
AN 1977:433436 HCAPLUS
DN 87:33436
TI In search of anti-Trypanosoma cruzi drugs: new leads from a mouse model
AU Kinnamon, Kenneth E.; Steck, Edgar A.; Hanson, William L.; Chapman, Willie L., Jr.

CS Div. Med. Chem., Walter Reed Army Inst. Res., Washington, DC, USA
SO Journal of Medicinal Chemistry (1977), 20(6), 741-4
CODEN: JMCMAR; ISSN: 0022-2623
DT Journal
LA English
CC 1-3 (Pharmacodynamics)
GI



I

AB Nine of 25 compds. selected from >200,000 chems. had significant suppressive activity against parasites in the blood of a T. cruzi mouse model. Five 8-aminoquinoline derivs., a 7-aminoquinoline deriv. (I) [62658-31-5], p-methylbenzyltriphenylphosphonium chloride [1530-37-6], and trans-5-amino-3-[2-(5-nitro-2-furyl)vinyl]-1,2,4-oxadiazole [28754-68-9] had activity .gtoreq. nifurtimox. For the 1st time, suppressive activity against T. cruzi has been reported for a 7-aminoquinoline deriv., a phosphonium salt, and tris(4-aminophenyl)carbonium pamotate [2706-47-0].
ST trypanosomacide screen mouse model; aminoquinoline trypanosomacide; phosphonium salt trypanosomacide
IT Trypanosomicides
(mouse model for screening of)
IT Mouse
(trypanosomacide screening in, as model)
IT Molecular structure-biological activity relationship
(trypanocidal, mouse model for screening of)
IT 52-52-8 703-95-7 14769-73-4 21738-42-1 21873-45-0 50823-61-5 51123-83-2 60368-04-9 60504-61-2 **62658-26-8** 62658-27-9 62658-29-1
RL: BIOL (Biological study)
(as trypanosomacide)
IT 1530-37-6 2706-47-0 28754-68-9 62658-17-7 62658-18-8 62658-20-2 62658-21-3 62658-22-4 62658-23-5 62658-25-7 62658-31-5 62705-19-5
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(trypanosomacidal activity of)
IT **62658-26-8**
RL: BIOL (Biological study)
(as trypanosomacide)
RN 62658-26-8 HCAPLUS
CN Guanidine, N,N'''-[(tetrahydro-2,5-furandiyl)di-4,1-phenylene]bis-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl